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# CLINICAL MEDICINE AND SURGERY

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## • LEADING ARTICLES •

	PAGE
U. S. Army in American Medicine - - -	393
Diagnostic Agent in Occult Infections - - -	395
Notes from the A. M. A. Meeting - - -	397
Tumors of the Soft Parts - - -	401
Bismuth Orally in Treatment of Syphilis - - -	405
Iodine Therapy in Vasomotor Rhinitis - - -	408
Sinusoidal Stimuli in Gastric Acidity - - -	411
Objective of Diagnosis of Mouth Diseases - - -	416
Editorials - - -	389

• COMPLETE TABLE OF CONTENTS ON ADVERTISING PAGE FOUR •

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WALTER LAWRENCE BIERRING, M.D., F.A.C.P.





# CLINICAL MEDICINE AND SURGERY

GEORGE B. LAKE, M.D.

• Editor •

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## EDITORIAL

### Dr. Walter L. Bierring

President-Elect of the A.M.A.

IN JULY, 1868, a son was born to Jeppe and Catherine (Jessen) Bierring, a Danish couple, connections of the hardy discoverer of the Bering Sea, who were living in Davenport, Iowa, and they called him Walter Lawrence.

Young Bierring, like a good Hawkeye, attended the schools in his home town and, in due course, was graduated from the College of Medicine of the Iowa State University, in 1892, and immediately went to Europe for graduate study at Heidelberg, Vienna and Paris, which pilgrimage he has made with such frequency and regularity that it has become a practice with him.

Dr. Bierring's distinguished career as a medical educator began the year after his graduation, with his appointment as professor of pathology and bacteriology in his Alma Mater, in 1893, which chair he held for ten years and was then made professor of the theory and practice of medicine, in which capacity he functioned until 1910, when he was called to occupy the same chair at Drake University College of Medicine, until 1922.

Dr. Bierring has been president of the Iowa State Board of Health and also of the State Board of Medical Examiners. He is secretary-editor of the American Federation of State Examining Boards, a member and past-presi-

dent of the National Board of Medical Examiners and a regent of the American College of Physicians. In 1921 he was made an honorary member of the Royal College of Physicians of Edinburgh, in recognition of distinguished services to reciprocity in medical education. When these lines are read, he will have assumed his duties as State Health Commissioner of Iowa, to which position he was recently appointed.

As a practitioner and consultant in the field of internal medicine, Dr. Bierring's reputation is enviable. To this his knowledge of pathology and bacteriology may be no mean contributing factor. He has been attending internist at the Iowa Methodist, Iowa Lutheran and Mercy Hospitals, and his contributions to the literature of his profession have been numerous, including a textbook, "Outlines of Diagnosis."

For nearly thirty years, Dr. Bierring has been active in organized medicine, having been president of his county and state medical societies; secretary of the Section on Physiology and Pathology of the A.M.A. in 1905 and '06 and its chairman in 1907; Chairman of the Section on Practice of Medicine in 1919; and a member of the House of Delegates, in one capacity or another, nine times.

Now his outstanding services to medical education and medical organization have been fittingly recognized by his selection as president-elect of the American Medical Association, to take office in 1934, in a period of transition and stress. This will mark one of the high points in his long and useful career, but there is no reason to believe that it will come near to being its climax or its end, and there is every hope that he may give gallant service in the solution of some of the serious problems which now confront the medical profession.

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Before it can be solved, a problem must be clearly stated and defined.—LITTLE JOURNAL FOR PEDIATRISTS.

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### High-Potency Viosterol in Hay Fever

THERE are few, if any, non-fatal diseases which produce so much discomfort and loss of efficiency as result from hay fever. Even when cure is impracticable, successful efforts at amelioration are, therefore, fully justified.

The most reliable method so far introduced is desensitization by repeated and increasing injections of antigens made from the offending pollens, given in courses, annually for several years. Since, however, this treatment is not always available or advisable, other methods of relief deserve sincere and painstaking study.

Within the past year or two, several articles have appeared recommending the use of viosterol in these cases. A recent article by Rappaport and Reed (abstracted in this issue) reports satisfying results, in a carefully controlled series of six cases, from the use of massive doses of viosterol—500 to 1,000 times the size of the doses of this remedy ordinarily given.

This study was, frankly, in the nature of research and the authors do not commit themselves to definite conclusions, but a brief consideration of some of the problems they have not discussed seems to be in order.

Because overdoses of viosterol are said, by some reporters, to be dangerous, most physicians are decidedly conservative in administering this remedy, although it has repeatedly been stated that an "overdose" means one about 10,000 times as large as those ordinarily prescribed.

This report should relieve the minds and con-

sciences of timid clinicians, by showing that doses from 500 to 1,000 times as large as the conventional ones appear, so far, to cause no serious results. Moreover, the symptoms of excessive doses—nausea, vomiting, abdominal cramps and diarrhea; and, later, headache, weakness, muscle and joint pains, dizziness and tingling in the extremities—are readily recognizable and subside promptly when the medication is suspended or the dose reduced. Thus, if it finally appears that these large doses are required to produce results, none need fear to administer them, tentatively and with careful observation.

We must not, however, overlook the economic side of this question. The high-potency preparations of viosterol are not, at present, readily available for therapeutic use, and, at the present price of viosterol 250D, the doses used in these studies would cost the patient from four to sixteen dollars a day, if prescribed in that form—as much as or more, for two months' treatment, than the price of a trip to northern Michigan or Arizona, to say nothing of the doctor's fee.

On the basis of present knowledge, it seems reasonably certain that vitamin D is definitely useful in ameliorating the symptoms of hay fever, but a great deal of study needs to be done on the matter before it can be used with complete intelligence. First, what is the optimum dose? Kitsuta reported good results from as little as that contained in 16 cc. of cod-liver oil; and another observer got the same effect from vitamin-equivalent doses of haliver oil with viosterol; so it would seem that the doses reported by the Chicago observers are probably much larger than is necessary for therapeutic purposes.

On the other hand, the men who used the small doses of viosterol combined it with vitamin A; and Kitsuta added vitamin B (yeast) also. It would appear, therefore, that work must be done to determine what combinations of vitamins act most satisfactorily in this disorder.

The hay fever season is now at hand and an opportunity is open to hundreds of physicians to make careful clinical studies of the effects of vitamin D, alone and in combination with other vitamins, on a number of sufferers with this malady, to determine the doses and combinations which produce the best results.

We hope that a number of our readers will do some work of this kind; keep full and accurate records; and report their results, for the progress of scientific knowledge and the benefit of other clinicians.

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Never ask me what I have said or what I have written; but if you will ask me what my present opinions are, I will tell you.—JOHN HUNTER.

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### The Art of Surgery

ANYONE with a retentive memory and dextrous hands can learn the *science* of surgery in a few years. A thorough knowledge of anatomy and of the mechanics of the various incisions used will enable a man, if equipped with an outfit of good instruments and a flexible and responsive pair of hands, to perform any operation described in the textbooks—but he will not be a *surgeon*.

The *art* of surgery is something quite other. Like all arts, its mastery is as long as an active lifetime and the artist is never satisfied with his work. Moreover, it is a strictly individual matter and cannot be transmitted to one's posterity, nor communicated to another. It must be *developed*—not learned—by each for himself.

Judgment, based on long experience, and intuition—often called “the surgical conscience”—are the prime factors in this art. The real surgeon, as distinguished from the casual operator, must have a wide, deep, sympathetic and detailed knowledge of human beings, as organic wholes, combining body, mind and spirit, rather than a simple (even though extensive) familiarity with the construction of his physical investiture; though, of course, this latter knowledge is also essential.

There is a story about an artist who painted pictures in such vivid and enduring colors that his fellows marvelled. When they went to find out how he did it, they found him dead from the old wound whence came the life blood that he mingled with his pigments.

In a sense, this is the allegory of all the arts, including surgery. Brains are necessary; also the elbow-grease of unremitting effort, but the mixture will not “jell” into a deserved and enduring fame without a sense of consecration and unfailing enthusiasm—that “divine afflatus”—that catalyst from the in-

terior of man—which distinguishes the artist from the artisan; the master from the piece-worker.

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A Stradivarius violin produces only jazz for a jazz player.—ROBERT QUILLEN.

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### The Army Medical Library

THE greatest medical library in the world, founded by Surgeon General Lovell, in 1818, is right here in the United States—the Army Medical Library, often called the Surgeon General's Library, in Washington.

This monumental collection of books on medicine and the allied sciences, whose facilities are available, under certain necessary conditions, to every physician in the country, is now inadequately, improperly and unsafely housed, along with the Army Medical Museum, in an old building in the southwest section of Washington, and urgently needs new quarters.

When the Army Medical Center, of which Walter Reed Hospital is a part, was established, it was intended that the Library should be located there and land was purchased for that purpose. The Medical Society of the District of Columbia and the American Medical Association (calling it “America's greatest contribution to medicine”) have passed resolutions urging its establishment there, but, although the site is waiting, money for the construction of the necessary building has not been made available.

This great library and museum are not, and cannot properly be made, a part of the Congressional Library. They belong to the Army Medical Center. Moreover, the condemnation and purchase of land in the vicinity of the former institution, and the construction of a corresponding stone building, would be much more expensive than placing the Army Medical Library in the place intended for it.

Now that a vast program of public works has been inaugurated, every physician and medical group which has the welfare and progress of medical scholarship at heart, will promptly impress upon their representatives in the Congress and upon other authorities the pressing importance of this relatively inexpensive piece of construction, and will follow the matter up until it is completed.

### Animal, Vegetable and Mineral

**D**URING the past twenty-five years, especially since the War, there has been immense progress in the field of synthetic chemistry and in many other lines of research. Great, fundamental problems, like that of the control and cure of cancer, tuberculosis and the "common cold," are being attacked by the large, endowed institutions, which are the only agencies competent to deal with them adequately, though anyone may be able to help.

There are, however, many problems of lesser scope which are being studied by the progressive pharmaceutical houses, in cooperation with the university research workers—and such collaboration was never so friendly and helpful as it is today—with immense profit to the clinicians who are constantly seeking new therapeutic substances to help them in the cure or amelioration of disease. Important progress has been made in the production of new members of the barbituric acid series (the hypnotics) and of local anesthetics, and, more recently, in the fields of the vitamins and of certain glandular products, to mention only a few lines of work. The physicians who are not making use of the newer remedies are neglecting some of the most obvious methods for increasing their professional and financial success.

But we must not get the idea that, because so much has been done of late, we are reaching the point where there is little or nothing awaiting us in the future. The acute infectious diseases, like typhoid, diphtheria and smallpox, are far rarer than they were a generation ago; but they are being replaced, in the average physician's practice, by the nutritional and so-called degenerative diseases, and that means that many of the older physicians must practically study medicine all over again,

in order to fit themselves to deal with the maladies of the patients who now consult them.

In the years just ahead, intensive research will be continued into the powers and properties of the vitamins and the substances which contain them, as well as into other phases of human metabolism—the inorganic minerals, for instance, such as the relations between iron and copper—and also into the hormones produced by the presently recognized endocrine organs and others which may be so recognized in the future.

One field which seems to have been unduly neglected is that of the medicinal plants, which formerly constituted the major part of our materia medica. A few years ago a new alkaloid, ephedrine, was discovered in a plant which was in wide use long before the Christian era, but had been overlooked by Occidental students. Who knows but there may be more gold mines of this nature just at the foot of our kitchen steps, so to speak?

Physical therapy, too, in all its branches, deserves, and will, no doubt, receive more detailed and controlled study of the agencies employed in its practice.

And then, there are the fascinating vistas opened up by the theories of J. E. R. McDonagh, suggesting, not merely new drugs for our study, but an entirely new background for the use of many of the old ones.

It now seems probable, however, that the new therapeutic roads which we are like to travel during the next decade will be laid upon intensive laboratory and clinical studies of remedies of animal (endocrine and other), vegetable and mineral origin; and that the man who actually applies these remedies in the treatment of patients will be expected and required to contribute his part to these studies. The wise ones will be preparing themselves for this work now.

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### The Lure of Life

*Life holds more things than joy and high emprise  
And lures me with the savor of each one.  
I see God's hand, when crimson evening dies,  
No less than in the rising of the sun.*

G. B. L.

# LEADING ARTICLES

## The United States Army in American Medicine\*

By M. A. DeLaney, M.D., Carlisle Barracks, Pa.

Brigadier General, U. S. Army  
Assistant Surgeon General; Formerly Medical Advisor in Public Health and Sanitation  
to Governor-General, Philippine Islands

THE Medical Corps of the Army was founded in 1775, at the beginning of the Revolutionary War. In those trying days the medical men seemed to take a more active part in the affairs of the nation than they do today. We find General Joseph Warren, a physician, leading the troops at Bunker Hill. Other great names are Arthur Lee, Bartlett, Prescott, Mercer, Dearborn, McHenry and William Eustis, all physicians. Six of the signers of the Declaration of Independence studied medicine.

The first Surgeon General was Benjamin Church, who was succeeded by John Morgan, of Philadelphia. Morgan served in the Indian Wars, became the first professor of medicine in the first medical school in America, the University of Pennsylvania. Then came William Shippen, followed by Benjamin Rush. Rush resigned and became the first Director of the Mint, appointed by President Washington, whose first Secretary of War was Dr. James McHenry, after whom Ft. McHenry, at Baltimore, is named, and where Francis Key Scott wrote the "Star Spangled Banner" while a prisoner of the British in 1812. The next Secretaries of War were William Eustis and Henry Dearborn, both physicians and both of whom served in the Revolutionary War. Three other medical men became commanders of the army following the war: St. Clair, Dearborn and Wilkinson. Many others became United States Senators, members of the House and governors of their states.

The next important events were the studies of digestion made by Surgeon William Beaumont on Alexis St. Martin. Beaumont had studied medicine and entered the Army in 1820, in Michigan. He was called to treat St. Martin, a French Canadian, 19 years old, who had been accidentally shot in the left side, causing a wound, the size of one's hand, into the stomach. A gastric fistula remained and the process of digestion was plainly observed. Beaumont studied it for years, keeping St. Martin in his own house and paying him out of his own purse, and wrote his findings, still a classic: "Physiology of Digestion and Observations

on the Gastric Juice." St. Martin lived until 1880 and was the father of 20 children.

Only two outstanding men of the Civil War can be mentioned: Surgeon General William A. Hammond and Johnathan Letterman. Hammond established the Army Medical Museum, the largest in the world. Letterman installed a method of evacuating the wounded from the battlefield, which is now used by every army of the world. During the Battle of the Argonne, in the World War, using this procedure, the Army ambulances made 28,000 trips over a distance of 28 miles, not to count the shorter ones, transporting our wounded. This real test showed its efficiency.

Later, against the Indians, we find General J. B. D. Irwin, Medical Corps, winning the Medal of Honor in the southwest by commanding troops and carrying a wounded soldier on his back and treating him under fire. Surgeon Leonard Wood, in 1886, was commanding a company with General Lawton against the Apache Indians. The Indians, behind trees, were shooting down the soldiers with ease, but Wood ordered the soldiers to shoot directly at the trees with their high-powered rifles, and brought down an Indian every time. Then Wood was sent for reinforcements, rode 70 miles and walked 35, all in 36 hours; obtained reinforcements and won his Medal of Honor. Colonel James Robb Church, of the Rough Riders, in Cuba, behaved as did Irwin.

Colonel John Shaw Billings, of Pennsylvania, established the Surgeon General's Library, the largest in the world, and for thirty years was librarian. He started the "Index Catalogue" and the "Index Medicus," drew the plans for Johns Hopkins Hospital, in 1875, and was professor of hygiene at the University of Pennsylvania and in charge of New York City Public Library.

General George M. Sternberg, who was a real scientist, became Surgeon General in 1893. He discovered the pneumococcus, wrote the first textbook on bacteriology and was one of the Surgeon Generals who contracted yellow fever, the others being O'Reilly and Gorgas. He established the Army Medical School, which had among its faculty Drs. W. W. Keen

\*Read before the Lackawanna County Medical Society, Scranton, Pa., Nov. 15, 1932.



and Walter Reed. He founded the Army Nurse Corps and appointed the medical board, composed of Major Walter Reed, Drs. James Carroll, Jesse W. Lazear and Aristides Agramonte, to study yellow fever in Cuba in 1900. He was at one time president of the American Medical Association, as was also General Gorgas.

#### **Yellow Fever and Malaria**

In 1904, when the United States began the construction of the Panama Canal, General Gorgas, who had become an international figure, became the chief health officer. The French, under de Lesseps, had failed, due largely to health conditions. LeBlanc said to de Lesseps: "If you try to build this canal, there will not be trees enough to make crosses for the graves of your laborers." Of the 40,000 employees of the French, 22,000 died.

While yellow fever mosquitoes remain infective for only three days, the anopheles remains so for life—three to six months, or even a year. The control of malaria resolves itself into a matter of finances. The anopheles is not a domestic mosquito, so we have to go out and destroy the breeding places. This is what Gorgas did in Cuba and Panama. In 1901 the malarial incidence in the Army was 381 per 1,000. Today it is 6 per 1,000.

#### **Typhoid**

When General O'Reilly, another Pennsylvanian, became Surgeon General in 1902, the Medical Department was badly depleted following the Spanish-American War. He had been White House physician for eight years with President Cleveland and was a man of rare ability and charm. Through his efforts a Medical Reserve Corps law was enacted, so vital during the World War. He detailed Major F. F. Russell (now General Russell, of the Rockefeller Foundation), to carry on the work of anti-typhoid vaccination, and called a board of some of the leading medical men of the United States to investigate its value. Russell had been working with Sir Almroth Wright, in London, but had greatly improved Wright's technic.

The board recommended that all troops be vaccinated against typhoid; so, in 1911, when troops were assembled in Texas, when it seemed we would have trouble with Mexico, 20,000 men were vaccinated and not a case developed. When we entered the World War all our troops were compulsorily protected. During the first year of the War (1914), the French had 45,000 cases of typhoid. Throughout the War the Germans had 112,300, the Austrians 172,000, the British 30,000 cases, as vaccination was not compulsory. We had 1,535 cases.

#### **Leprosy**

In the Philippine Islands the scourges were leprosy, cholera, smallpox, beri-beri, dysentery, tuberculosis and malaria.

Lepers were segregated to a new leper colony, selected by medical officers, on the island of Cullion, about 300 miles south of Manila. There are about 6,000 under treatment there. It is the largest colony in the world. So well satisfied are these patients and so sure of recovery that they go without objection and, indeed, seek admission to begin their treatment. The refined esters of chaulmoogra oil are used in the treatment and made on the island, under the direction of an American chemist. Up to 1932, 2,500 patients have been discharged as arrested cases and have again taken their places in the great scheme of life.

In this colony they have their own municipal government—mayor, city council, chief of police, judges, churches, hospitals, bands, boy scouts, camp-fire girls, farmers, fishermen; in fact, all callings found in a normal community. Several smaller treatment stations have been built at Manila, Cebu, Iloilo, Zamboanga and Legaspe. Two million dollars have been donated by enthusiastic Americans to establish the Leonard Wood Memorial Foundation for the Study and Cure of Leprosy. Mr. Eversley Childs, of New York, has erected a magnificent group of 53 buildings at Cebu, also in memory of General Wood.

#### **Cholera and Smallpox**

Another disease, formerly not unknown to the United States, with which the army medical man has to contend, is cholera, which is endemic in the Philippines. In the early days of American occupation (1902-1903), it cost 200,000 lives. In those days we had no weapon with which to combat this scourge. Now we have perfected a vaccine, made by our Bureau of Science, that is very successful. In 1930 we vaccinated 2,000,000 people against cholera alone in the Philippine Islands.

Another dread disease we frequently found on the streets of the towns in the early days was smallpox. For a year and a half I had charge of the Cholera and Smallpox Hospital in Manila and saw many Americans pass to the great beyond because they were not vaccinated. The people are now so thoroughly protected by vaccination against the disease that there is not even a case with which to teach the medical students. The year before we began this work, 49,000 people died from smallpox, according to the report of the Director of Health.

#### **Beri-Beri**

The U. S. Army has a board of army medical officers, known as the Tropical Board, constantly working in the Islands. It has accomplished wonders. Many remarkable discoveries have been made, about which the people here at home know little. The infantile form of beri-beri leads all other causes of infant mortality. In 1900, 471 per 1,000 births died. Last year the number was reduced to 150.

The Board found that it was a deficiency disease, due to lack of vitamin B in the diet of the mothers. Every oriental eats rice and fish. The principal article of diet of the Filipino people is the finely polished white rice. The Board discovered that, if a considerable part of the pericarp is retained, beri-beri does not develop, and recommended the use of unpolished, yellow rice; but it was almost impossible to change the habits of the people. The Government even put a tax on the polished rice, but they purchased it nevertheless, and do so today. We have about 6,000 Filipinos in our troops, called Filipino scouts. Among these, 100 men per 1,000 used to develop beri-beri. The same occurred in the Japanese army, where rice was the chief article of diet. We changed the diet, and beri-beri disappeared. We do not now have a case, nor do the Japanese in their army; yet beri-beri stands, today, as the second cause of death in the Philippine Islands.

Then the Board made another discovery. They took the rice polishings, made an alcoholic extract from this waste and gave 20 drops of it to a dying child every three hours. The result was miraculous. In a few days the child was well. Today, the Philippine Legislature appropriates \$30,000 a year to make this extract, which is known as *tiki-tiki* (a Tagalog word). It is issued free to the people and absolutely prevents and cures the disease. This surely is a great health victory, in a country where fresh milk is not obtainable.

The Board has demonstrated that dengue, one of the great causes of morbidity in the

Islands, is transmitted by the same mosquito, *Aedes aegypti*, that conveys yellow fever. This discovery aids the Caucasian to protect himself from one of the most debilitating diseases found in hot countries. When I contracted the disease, I remembered what Sir Patrick Manson said, that one never died with dengue, and I was really sorry I could not pass out.

#### Dysentery

Another serious problem the Army encountered in the Philippine Islands was the control of dysentery. The medical profession knew very little about this widespread infection, which was the fourth cause of death among the oriental peoples and had swept through the Japanese army and navy. With the aid of Flexner, Barker and others, it was shown that several varieties of the disease were present in the Islands. Shiga had described the bacillary form, Flexner discovered another and Russell a third. The Board found the amebic form the most prevalent among our troops and its most serious complication was abscess of the liver. Ipecac was being used, but the active principle, emetine, was found to be much more effective, and also appeared to prevent liver abscess. Today, in Manila, we rarely see amebic dysentery, and even more rarely liver infection; but bacillary dysentery is still very prevalent. Indeed, 90 percent of the cases seen are of this type. We have perfected a serum for treating these cases and a polyvalent vaccine as a prophylactic, both prepared at the Bureau of Science. In 1930, 1,500,000 people were vaccinated against bacillary dysentery.

## A New Diagnostic Agent in Occult Infections

By Henry R. Harrower, M.D., Glendale, Calif.

IN AN astonishing number of cases presenting complicated, long-standing endocrine dysfunctions, the benefit from indicated organotherapy may be enhanced by the discovery and control of latent infections.

Foci of infection are among the commonest causes of dyscrinism. For example, innumerable cases of hyperthyroidism are related to, if not actually based upon, infections in the teeth, tonsils, sinuses, etc. Of equal importance, though considerably less frequent, are the latent genito-urinary or pelvic infections, which may cause or exaggerate gonad irregularities, such as dysovarium or impotence.

Nutritional and developmental disorders in children, with fairly clear-cut endocrine shortcomings, are often found to be built upon some more or less remote infection or infectious disease. Neuro-endocrine pictures, in which blood-calcium variations suggest the

involvement of the parathyroids, especially the spasmodic manifestations, chorea and tetany, commonly follow infections of a rheumatic type. Even certain cases of diabetes mellitus have been thought to result from a localized infection involving the pancreas, either by contiguity or through a blood-borne infection.

Perhaps the most common of all the functional endocrine disorders is hypoadrenia, and by this time the literature is replete with evidence—experimental and clinical; physiologic and pathologic—that infections of almost every description put a serious stress upon the adrenal glands. The outstanding clinical problem of the great influenza epidemics has been the tremendous endocrine depletion. In fact, this is one of the most frequent and serious sequelae of this disease.

It may be stated unequivocally that many

endocrinopathies, organic as well as functional, are built upon a foundation of bacterial invasion. Not infrequently such infections remain, latent and unnoted, only to accentuate the clinical picture and interfere with the efficacy of the supposedly indicated treatment.

The solution of endocrine puzzles, then, should lead us to the most thoroughgoing search for etiologic factors of this nature, for how can we expect success if such fundamentals are overlooked?

In many cases in this category we fail to establish the presence of definite infective activity. Roentgenograms of the teeth may have revealed no useful information; the tonsils may have been given a clean bill of health or removed previously; and the sinuses transilluminated without showing anything of note. The digestive canal often reveals nothing of particular moment; and others of the more usual foci of infection may have given us little or no cause for anxiety.

The anamnesis often (almost invariably) contains a record of various infections or infectious diseases, overcome in years gone by. Occasionally the sequelae of some of these infections may be incriminated as factors in the etiology of the problem confronting us. Many times an old gonococcus infection, presumably healed, has been rearoused in connection with some later depleting (usually infective) circumstance, such as influenza. Other infections, like endometritis or certain dermatoses, are not charged with a part in the etiology, because of their insignificance or because they do not appear to be connected with the difficulty concerning us.

Obviously, if latent infections do indeed form a part of the background of these problem cases, we ought to be aware of their existence so as to be better able to control them. The object of this brief paper is to call attention to a measure that bids fair to help us materially in the study and treatment of these cases.

For some years there has been available a product fractionated from blood-serum, which appears to arouse the defenses of the organism against certain types of bacteria. Known as Edwenil, this agent is capable of increasing antibody production and at the same time causing certain very definite clinical responses, among which is one of particular interest in this connection.

Early in the work that led to the perfection of this product, it was noted that certain patients into whom it was injected, experienced toothache, in connection with the specific beneficial responses. This happened enough times, and was confirmed by the x-ray studies, to permit the presumption that, while the desired antibacterial response was being brought about, coincidental activity was also aroused in the unsuspected areas of infection

—the unappreciated apical abscesses were disclosed as a result of the increased local activity in them.

Again, it was found that boils reacted quite uniformly to this new measure. One or two injections almost invariably increased the activity in and around the boil itself, the induration softening, its maturity being hastened, and the boil opening within from twenty-four to thirty-six hours. Diffuse infections, such as cellulitis, have responded in the same way and "head up" promptly.

Quite similar experiences have been noted many times in other types of infection. The activity in an infected sinus has been re-aroused, with a considerable increase in the exudate. The increased output of material is obvious if there is drainage; but if the drainage is imperfect, local pain and tension may result from pent-up fluid. Exactly the same thing is true in chronic otitis, chronic bronchitis, chronic endometritis and other infections of long standing, and the stimulus to the local antibacterial processes is sometimes very marked.

The philosophy underlying the application of this idea makes it of theoretical value in numerous other infections, including latent salpingitis, ischio-rectal infections (culminating later in abscess), prostatitis and other chronic, local genito-urinary infections, pyelitis, and, in fact, any localized area of infection with any of the *endotoxigenic* types of bacteria. This includes the majority of infections and infectious diseases, exclusive of diphtheria, tetanus, smallpox, meningitis, and, perhaps, tuberculosis and scarlet fever.

This arousing of a renewed response in an area of hidden infection is not a detriment to the patient, even though, in a sinus or middle-ear infection in certain special circumstances, there may be increased exudation, pressure and pain; or, in chronic bronchitis, the sputum is materially increased; or although, in a supposedly cured genito-urinary infection, new activity is thus aroused. Such responses are a prelude to control or cure. They give evidence, not only that such infections are present and likely to be subtle factors in complicating our endocrine problems, but that we have set in motion a series of activities which may lead to the removal of a factor that may reasonably be supposed to be an element in the etiology, as well as the continuation of, the endocrine responses that have led to the patient's present status.

Soon after I first learned about Edwenil, in England some years ago, it occurred to me that it might be a means of diagnostic as well as therapeutic value. Particularly in the type of clinical problems in which the endocrines are involved, this new measure has demonstrated its helpfulness in both ways. It must suffice here, however, to say that, for the pur-



pose of demonstrating latent bacterial activity, Edwenil is given in doses of 4 or 5 cc. intramuscularly, once, or twice 24 hours apart. Where such foci of infection are definitely known to exist, especially where the drainage is not good (as in mastoiditis, cholecystitis and appendicitis), much smaller daily doses (from 0.5 to 1 cc.) are in order.

The primary purpose of this paper is not to

offer explanations of the nature of Edwenil and its numerous clinical potentialities, which I am personally convinced are quite remarkable, but to give a hint about what appears to be a new and practical diagnostic procedure of particular value in disclosing occult infections, whether or not they happen to be a part of the etiologic background of the chronic, intractable endocrine irregularities.

## Notes from the A. M. A. Meeting

Reported by George B. Lake, M.D., Chicago

THE advantages of Milwaukee as a convention city were again demonstrated during the eighty-fourth annual session of the American Medical Association, in June, 1933. The Municipal Auditorium can handle all exhibits and all section meetings under one roof (which is a great advantage), and the hotels seem able to take care of even large groups of visitors adequately. The registration of physicians this year was about 5,000, and all seemed content.

The scientific meetings were handled much better than usual. In all the sections I attended, the programs were carried out on schedule, by insisting that speakers and discussants keep within their time limits and by refusing to shift the order of papers according to the whims of the essayists.

Several other organizations met at the same time, among them the Association for the Study of Internal Secretions, some notes from which are included here.

The House of Delegates transacted much important business (which will be reported in detail in the *J.A.M.A.*) and chose Dr. Walter Lawrence Biering, of Des Moines, Ia., as the new president-elect and Dr. John H. Musser, of New Orleans, as vice-president. Next year's meeting will be held in Cleveland, O. The president's reception and ball, at the Hotel Schroeder, was one of the pleasantest in many years.

### The Exhibits

The well-arranged scientific exhibit was one of the best in a long time.

In Class I (individual investigations), the gold medal went to Dr. Moses Swick, of New York, for his work on intravenous and oral urograms made with sodium iodohippurate; the silver medal to Dr. L. F. Badger, U. S. Public Health Service, for his work on the differential diagnosis of Rocky Mountain spotted fever and endemic typhus; and the bronze medal to Drs. John W. Towey, Powers, Mich., Henry C. Sweany, Chicago, and Willis H. Huron, Iron Mountain, Mich., for studies of a form of pneumonitis produced by the spores of a fungus in maple bark.

In Class II (correlation and presentation of previously known facts), the gold medal was given to Drs. Elliott P. Joslin, of Boston, and Herbert H. Marks, of New York City, for an exhibit showing the prevention of diabetes mellitus; the silver medal to Dr. F. P. McNamara, for a presentation of the activities of the laboratory of a 100-bed hospital; and the bronze medal to Dr. R. Plato Schwartz, of Rochester, N. Y., for an exhibit of the electrobasographic methods of recording the gait of man.

There was an extensive and highly instructive presentation of all factors entering into the problem of poliomyelitis, from its history to its after-treatment in the home.

Another splendid showing was that of the importance of a study of the capillaries of the nailfold, in diagnosis and prognosis. Many pictures of the conditions thus found were on exhibition, and visitors had a chance to see these capillaries directly, under the microscope, in the fingers of living subjects.

The exhibit of physical allergy (illness caused by physical agents, such as light, heat, cold and mechanical irritants), by Dr. W. W. Duke, of Kansas City, Mo., was especially unusual and instructive.

Three-dimensional graphs of comparative mortality and morbidity statistics for various diseases and years were more in evidence than ever before and help one to visualize and dramatize these matters which, to many, seem rather dry and tasteless.

Only one fault could be found with this fine exhibit, and that was that the "Chamber of Horrors" (showing of forensic medicine or the medical side of the study of crime) was open to the public without discrimination—and was always crowded. Photographs of the corpses of murdered persons, lying in pools of blood, with their throats cut, their heads blown half off or their bodies partly eaten by starving dogs, may well be interesting and helpful to police physicians, lawyers and detectives, especially if properly described by experts; but one cannot feel that it is wise or best to permit lay persons, particularly women and

children (many of the latter were almost constantly present) to gaze upon these horribly realistic mementoes of human depravity.

The commercial exhibit was large, diversified, well arranged and well attended and, as always, was an important educational feature of the meeting, even though nothing outstandingly new was in evidence.

Here follow abstracts of a few of the papers read before the general, special and section meetings, selected on the basis of clinical practicality.

### THE ANTERIOR PITUITARY

*By J. B. Collip, M.D., Montreal, Can.*

The anterior lobe of the pituitary gland produces at least two or three true hormones and several other physiologically active substances, which may or may not prove to be true hormones.

Collectively, these anterior pituitary products regulate growth; the functions of the thyroid, gonads and suprarenals; and lactation.

In some way or other the placenta is connected with the gonads; but the anterior-pituitary-like hormone ("A.P.L.") produces different effects in hypophysectomized animals from those seen in normal controls, showing that at least two active substances are present.

The adrenotropic substance from the anterior pituitary is distinct from the thyrotropic fraction and causes a large increase in the size of the adrenal cortex.

### A NEW SYNTHETIC ARSENICAL IN SYPHILIS

*By Drs. S. W. Becker and M. E. Obermayer, Chicago*

The organic arsene oxides are trivalent compounds which produce good results in the treatment of syphilis. They are readily soluble in water and produce clear, stable solutions, which will stand brief boiling without damage.

A new drug of this class (sodium *p*-acetyl-amino-phenylarsenous *di*-thio-phenyl sulpho-nate, dissolved in the monoethanolamine salt of *p*-thio-phenyl sulphonic acid—spoken of as *Kharasch Arsenical No. 16*), containing 5 percent of arsenic, has been used in 300 patients, suffering from all types of syphilis in which intravenous medication is indicated, with results which, while slower than those following the use of arsphenamine, compare favorably with them. In practice it has usually been combined with bismuth treatments. The serologic results have not been quite so good as those following the administration of the arsphenamines.

The complications following the use of this drug have been chiefly early reactions, such as nausea, vomiting, headache and diarrhea;

though the same types of toxic reactions as those seen in arsphenamine medication may occasionally be expected. However, dermatitis, encephalitis, neuritis, hemorrhagic purpura and untoward effects on the eyes have not been seen in this series of cases.

The apparent safety, good results and ready availability (simplified administration—it is marketed in ampules, ready for immediate use) of *Kharasch Arsenical No. 16*, seem to warrant its consideration in antisyphilitic therapy.

### ANTI-INFECTIVE VALUE OF CAROTENE

*By S. W. Clausen, M.D., Rochester, N. Y.*

The amount of carotinoid pigments in the blood plasma is not directly correlated with resistance to infections, which are frequent when these substances are low or high in the blood, and less frequent when the quantities are moderate. The quantity of carotinoids in the liver does not fall materially, even in those who die.

No preparation of carotene, given by mouth, will raise the blood-carotene in all patients. The oral administration of this substance is very inaccurate. Infections, especially those accompanied by fever or diarrhea, interfere seriously with the absorption of carotene, and are not prevented by it. In fact, studies on 729 children over two years of age indicate that the administration of carotene will not increase the resistance to infection in the majority of older children.

During the period of rapid growth, large quantities of vitamin A are needed, and Hal-iver oil or cod-liver oil seems to be the best way to give it, especially to young children, as it is more readily and rapidly absorbed than is carotene, especially when the latter is given in oil.

### Discussion

*By I. Newton Kugelmass, M.D., New York City*

The carotinoids in the blood give no true index of the amount of vitamin A in the liver and other tissues; nor have we any clear knowledge of the changes which take place in carotene in the human body. Vitamin A may be high, with low blood-carotinoids; or low when the latter are high. Large doses of carotene do not protect against upper respiratory infections.

### BARBITURATES IN PSYCHIATRIC PRACTICE

*By Carl P. Wagner, M.D., Hartford, Conn.*

The barbiturates are valuable aids in the handling of psychiatric conditions. They all slow respiration by depressing the respiratory center. In *overdoses* the short-acting barbiturates may cause sudden death by respiratory paralysis; while the long-acting varieties accomplish the same result more insidiously, by pulmonary congestion. All pulmonary troubles are, therefore, contraindica-

tions for these drugs, especially if their use is to be continued.

All barbiturates cause more or less fall in the blood pressure. This is most marked when Sodium-Amytal is given intravenously. Nembutal (short-acting) is the least toxic of the barbiturates in general use.

The *antidotes* for these drugs are epinephrin, ephedrine, caffeine and picrotoxin. An intravenous injection of 2 to 5 cc. of a 25-percent solution of Coramine or a suitable dose of caffeine-sodium benzoate will bring a patient out of deep narcosis in a few minutes.

The short-acting barbiturates produce euphoria and readiness to talk about one's affairs. Negativistic patients become more co-operative. All are more amenable to suggestion. Sodium-Amytal will bring catatonic patients into contact with reality and make them more accessible.

The two types of these drugs (long- and short-acting) are indicated in different conditions, and every patient must be carefully studied. We must study the side-actions of these compounds and adapt the drug and the dose to the individual, beginning with the doses recommended by the manufacturers. Sometimes the doses have to be increased, in prolonged illnesses, but *true addiction has not been recorded.*

If a patient is wakeful early in the night, give a short-acting barbiturate; if later in the night, give a long-acting one *an hour before bedtime.* Even then the patient is liable to be "dopy" in the morning. To elderly patients who wake early in the morning, give Nembutal. Give Sodium-Amytal, on an empty stomach (6 grains—0.4 Gm.—or somewhat more) as a prelude to psychotherapy in negativistic patients.

#### ACETARSONE INTRAVENOUSLY IN NEUROSYPHILIS

By Leo Spiegel, M.D., New York City

Acetarsone, a pentavalent arsenical, has been administered by mouth for some time, for the prevention of syphilis and in the treatment of congenital syphilis and paresis.

An exceedingly pure preparation of this drug, suitable for intravenous use, has been made by Razliss and Severac, and the material for these studies was furnished by the Dermatological Research Laboratories, of Philadelphia.

There is abundant evidence of the spirocheticidal power of acetarsone and, when given intravenously, it penetrates into the cerebrospinal system better than does trypanamide. Moreover, the results from its use are more prompt and it is practically free from reactions, especially untoward effects upon the optic nerve. It is well to give iodides, intravenously, along with it.

The effects on the serologic reactions are

somewhat slow, but definite. The cells and globulin in the spinal fluid are reduced most promptly. Clinical improvement appears in a short time and is marked.

Acetarsone, given intravenously, seems to be a highly satisfactory drug for the treatment of neurosyphilitic patients whose condition does not warrant malaria therapy or other non-specific measures. It is simple to use; relatively non-toxic; highly efficient; can be given over long periods without danger; and does not upset the patient's economic or social life.

#### GLAND TRANSPLANTATION

By Max Thorek, M.D., Chicago

There is no doubting that, clinically, the transplantation of testes produces results, even if the transplanted tissue is ultimately absorbed. When this occurs, another implantation will produce the same result.

Because a gland implant must have a free blood supply and protection from accidental injury, the best sites for such implantations are the highly vascular subperitoneal space under the rectus abdominis muscle, and the retrorenal space.

In spite of the great advances which have recently been made in ovarian extract therapy, it still remains true that ovarian transplants give better results.

Auto-, homo- and hetero-transplantations give results which are valuable in that (descending) order. The activity of homo-grafts lasts for about three years.

#### LYING AND THE PHYSICIAN

By Theodore Diller, M.D., Pittsburgh, Pa.

We all know the dictionary definition of a lie and the common understanding of the word; but, as regards the physician, the matter is not so simple as it sounds.

The problem may be divided into five parts: (1) When, if ever, is a physician justified in telling a lie?; (2) the question of lying, under pressure, in connection with life insurance examinations, death certificates, compensation boards, etc.; (3) lying by a patient, in putting up a defense for his self-esteem or to protect others; (4) misstatements of fact through ignorance or exaggeration; (5) lying or misleading statements on the witness stand.

A physician may not lie to protect himself; but he should lie when necessary to protect a patient or a family. A judicial opinion has been handed down, to the effect that, when a physician is asked about a patient by bystanders or busybodies, it is his duty to evade the question or give a false answer.

If a patient asks such as question as, "Doctor, am I going insane?" it would be brutal, disastrous—and very possibly untrue—to give an affirmative answer, even if the physician actually believes, at the time, that such is the case.

A reasonable degree of self-esteem is essential to life in civilized society, and reflex lies to "save one's face" are a part of the human mechanism of self-defense. All women and most men will lie when the truth would put them in a bad light.

The question of lying in official matters is one that the physician must answer to his own conscience in each particular case.

#### Discussion

*Dr. A. I. Rosenberger, Milwaukee:* False statements made by physicians on the witness stand, for personal or financial reasons, are utterly disgusting and bring the profession into public ridicule.

*Dr. Macfie Campbell, Boston:* In all contacts with a patient, we must consider his total human individuality and not be so eager to manure his soul that we do him a serious injury.

*Dr. George B. Lake, Chicago:* The man who is unable or unwilling to lie, firmly and convincingly, when the occasion demands it, is temperamentally unfitted for the practice of medicine, and certainly will be a total failure as a psychiatrist.

*Dr. John Favill, Chicago:* Truth is the ideal toward which the race is striving, but, at the present stage of our progress, there are many people who are not fit nor able to bear it. It is our duty gradually to train our patients to endure the truth.

#### ANXIETY STATES

*By Drs. Titus H. Harris and Abe Hauser,  
Galveston, Texas*

Anxiety states are probably the most frequently encountered conditions in medical practice; may simulate almost any form of physical disease; and, if properly handled, will show gratifying improvement.

The symptoms are caused by the effect of prolonged anxiety on the vegetative nervous system, resulting in actual disturbance of the physiologic functions of any organ or system to which attention is directed, most commonly the gastro-intestinal or genito-urinary apparatus.

In the *hysterias*, the symptoms affect the organs which are normally under voluntary control and produce alterations in the patient's conduct. This does not mean that the symptoms are always or generally produced voluntarily. In the *anxiety states*, the disturbance is chiefly emotional and affects the functions which are controlled subconsciously (blushing, syncope, diarrhea), and alter the patient's feelings. We do not see diarrheas due to hysteria. In the *obsessive-compulsive states*, the disturbance is in the mental sphere and alters the patient's thinking.

The cultists thrive on anxiety states, which are based on fear, conflicts and prolonged

emotional stress, and which result in conditioning to definite physiologic symptoms which, in turn, exaggerate the anxiety and stress and complete a vicious circle. Physicians are too prone to tell these unfortunates that "nothing is wrong with them," and to treat them vaguely.

Successful treatment consists in establishing the patient's confidence, by making a complete and careful physical examination and explaining the results to him fully; and then by helping him to adjust himself to the circumstances of his environment.

#### INSULIN IN TUBERCULOSIS

*By Frederick M. Allen, M.D.,  
Morristown, N. J.*

Insulin is certainly not a cure for tuberculosis, but it is a valuable adjunct in the treatment of that disease.

We must study each case and individualize the dosage. It is usually best to begin with 5 units before meals, and gradually work the dose up to 40 units three times a day, if the effects are satisfactory. This treatment may be continued for six or eight months, and with it we should give a free diet with plenty of carbohydrates.

If the doses of insulin are increased gradually and carefully controlled, it is harmless. Fever and hemorrhage do not contraindicate its use; intestinal lesions are an indication for it.

Under this treatment, most patients gain in weight, strength, appetite and general well-being, especially in the milder cases. An average gain of 25 pounds in weight may be expected, and is usually well retained after stopping the insulin.

#### THE SAFETY AND VALUE OF "B.C.G." VACCINE

*By William H. Park, M.D., et al.,  
New York City*

Cultures of *Bacillus Calmette - Guérin* ("B.C.G."), kept on different mediums for a number of years, have all remained attenuated. No method of handling increased their virulence. We are, therefore, sure that the method of vaccinating young children with these cultures is perfectly safe; and we feel that it probably does good, as shown by the fact that those so vaccinated always showed greater resistance to virulent tubercle bacilli than did the non-vaccinated controls.

If a person is likely to be exposed to tuberculosis, it is well to give him a slight and controlled infection (vaccination) with an attenuated culture of tubercle bacilli—B.C.G. We are justified in giving this vaccine, orally, to all young infants in tuberculous families and to all who are liable to be exposed to this infection later in life.

# The A. B. C. of Cancer\*

## 3. Tumors of the Soft Parts

By Charles F. Geschickter, M.D., Baltimore, Md.

Surgical Pathological Laboratory, Department of Surgery, Johns Hopkins Hospital and University

**TUMORS** of the soft parts may be derived from any of the specialized forms of connective tissue or from such structures as nerves, tendons or vessels. Similar tumors may occur in the framework or accessory structures in the internal viscera. Soft-part tumors may be benign or malignant, single or multiple and, although the benign forms are most frequent, there is usually a corresponding malignant form.

### Lipoid Tumors

In the group of lipoid tumors there are included benign and malignant lipomas and several varieties of xanthomas.

**Benign Lipoma:** The benign lipoma is one of the most common forms of connective tissue tumors and usually occurs subcutaneously in the region of the neck, back about the shoulders and on the upper extremities. The axilla is not an infrequent site. The most frequent form is the solitary lipoma which is a soft, lobulated growth, almost fluctuant, occurring in adults at the time of life when weight is on the increase. These growths are encapsulated, of a golden-yellow color and may be distinguished from other soft-part tumors upon transillumination, because of the readiness with which they transmit light (Fig. 1). They are characteristically attached to the overlying skin. Microscopically the lipoma shows many fat globules within septums of connective tissue, with small amounts of lymphoid and fibrous substance within the stroma. Occasionally vascularity may be marked, as in the so-called telangiectatic lipoma. These tumors may be treated by simple excision, which is preferable to enucleation.

**Multiple Lipomatosis:** As in the other soft-part tumors, the lipomas may be multiple. Some of these multiple lipomas are congenital in origin and have a familial history, and may occur diffusely over a single extremity and be accompanied by Von Recklinghausen's disease of the corresponding nerves, with the presence of pigmentation in the overlying skin. Other multiple lipomas may occur as numerous discrete nodules over the body and extremities and appear in adult life. The pathology of these tumors is the same as that described for solitary lipoma.

**Recurrent and Degenerated Lipomas:** Lipomas may recur repeatedly and yet retain a benign histologic character. In such recurrent

growths, however, microscopic changes may be observed, usually referred to as myxomatous or xanthomatous degeneration. In myxolipoma, large spindle cells invade the fatty tissue and the surrounding fat gives rise to a myxomatous-like matrix. The spindle cells show marked variation in their nuclei but are not definitely malignant in form and metastases do not occur. Apparently altered spindle cells in these growths may furnish a depot for lipid storage in the form of foam cells, and



Fig. 1.—Path. No. 34168: A lobulated lipoma, in the subcutaneous tissue of the leg of a male adult, successfully excised in 1925. The patient has remained well.

such tumors are generally described as xantholipoma. All myxo- and xantholipomas should be treated by radical excision, since they are prone to recur and may give rise to definite liposarcoma.

**Fat Necrosis:** The presence of foam cells, in the absence of marked spindle-cell proliferation and myxomatous change, is not of serious significance, since local injury of fat with simple fat necrosis may give rise to such foam cells, accompanied by granulation tissue and foreign-body giant cells. Cholesterol crystals may be deposited in such areas of fat necrosis.

**Xanthoma—Localized Form:** Simple changes in fat may give rise to the appearance of xanthoma with characteristic foam cells, granulation tissue, hemosiderin pigment and foreign-body giant cells, as described in fat necrosis. Such localized xanthomatous deposits are seen in tumors of the tendon sheaths and joints or in fatty organs, such as the breast or the perirenal tissue. Whether such localized xanthomatous tumors are primary neoplasms, or reticulo-endothelial tissue with lipid storage, is difficult to prove. The commonest form is the so-called giant-cell xanthoma of the tendon sheaths, which arises about the location of the sesamoid bones and may be a primary tumor of cartilage. These benign, localized, xanthomatous tumors may be treated by simple excision.

\*This is the third chapter of Dr. Geschickter's excellent handbook, which we are publishing serially. Others will follow.—Editor.



**Xanthomatosis—Symptomatic Form:** With diabetes, nephrosis and other systemic conditions, in which there are disturbances in the blood cholesterol and lipid metabolism, multiple xanthomatous tumors may occur subcutaneously or in the viscera. The typical example of this is xanthoma diabeticorum, which gives rise to yellow, multiple, firm tumors just beneath the skin in diabetic patients. These tumors are benign collections of foam cells, essentially symptomatic manifestations and rarely call for separate treatment.

**Xanthomatosis—Essential Form:** Essential xanthomatosis occurs in a group of cases in which there is a congenital disturbance of the lipid metabolism. The best examples of essential xanthomatosis are Christian-Schüller's disease, Neimann-Pick's disease and Gaucher's disease. These diseases usually occur in children and are familial and congenital in character, the nature of the lipid disturbance varying in these different syndromes.

In Christian-Schüller's disease there are defects in the cranial bones of the skull, exophthalmos, diabetes insipidus and often dystrophia adiposogenitalis, with or without dwarfism. The disease usually appears before the age of five and runs a mild course, with remission, and the blood-cholesterol may be definitely increased. The microscopic picture is typical of xanthoma, with foam cells, granulation tissue and multinucleated giant cells, accompanied by a deposit of hemosiderin pigment. The lesions yield to deep x-ray therapy.

Neimann-Pick's disease is a similar congenital disturbance in fat metabolism with a more rapid and fatal course, accompanied by pigmentation of the skin, ascites, edema and enlargement of the lymph nodes. There is marked elevation of the blood cholesterol. Histologically the disease is characterized by infiltration of foam cells into all the tissue of the body, particularly the reticulo-endothelial system. Chemically the deposit of lipoids consists of phosphatids and neutral fats. The soft parts are involved along with the other structures mentioned.

Gaucher's disease affects primarily the bones and spleen of children and is congenital in origin. The abnormal lipoids are cerebro-sides and phosphatids. The disease is not primarily a condition of the soft parts. It is characterized histologically by numerous large cells with a fine granular cytoplasm.

**Malignant Lipoid Tumors — Liposarcoma:** Liposarcoma is a relatively rare complication of benign or recurrent lipomas or may arise as a primary malignant nodule of the subcutaneous tissues. The tumors grow to large size, contain multiple nodules within the primary mass and rapidly metastasize to the regional lymph nodes. Such tumors may also occur in the breast, bones and internal viscera.

Microscopically the lesions are characterized by a peculiar network of spindle cells and bizarre tumor giant cells with an immense, degenerating, foamy cytoplasm. These malignant tumors are best treated by irradiation, and combined excision.

**Xanthosarcoma:** Xanthosarcoma is an ill-defined clinical entity. Most of the tumors described as such are sarcomas of other types, enclosing foam cells because of local changes



Fig. 2.—Path. No. 44744: Recurrent xanthosarcoma over the ankle, in a white female aged 60, of six months duration. The recurrence had followed both excision and postoperative irradiation. The second operation was also followed by a recurrence.

in the fat and nearby lipoids. Typical xanthomatous tumors about the tendons or joints may occur however, with foam cells, granulation tissue, giant cells, and hemosiderin pigment in which numerous large, malignant, spindle cells are seen. We have observed one fatal case about the joints, one recurrent tumor over the ankle (Figure 2) and one about the knee joint cured by irradiation. The tumors run a protracted course and apparently yield to irradiation.

#### Neurogenic Tumors of Soft Parts

A great variety of tumors associated with the peripheral nerves may occur in the soft parts. All these tumors are characterized by their tendency to recur after removal and all of them may undergo malignant change.

**Nerve Sheath Tumors—Neurofibroma:** Neurofibromas, accompanying the peripheral nerves, are very common and usually occur just beneath the skin and project as pedunculated tumors. They may be single or multiple. A characteristic clinical form of such multiple neurofibromatosis is known as Von Recklinghausen's disease. In this group of cases there are multiple subcutaneous nodules accompanying the distribution of peripheral nerves, and the overlying skin may be pigmented or show giant or multiple melanoma. The superficial manifestations of the disease are accompanied by similar neurofibromatous lesions along the deep nerves. These more deeply situated tumors may also undergo malignant change. The affected ex-

tremity may be enlarged—"elephantiasis nervorum"—or there may be simple hypertrophy of one of the bones of the extremity. Microscopically the tumors show a proliferation of fibrous tissue replacing the normal nerve sheath, through which the nerve fibers course in irregular fashion. Areas of myxomatous change are common.

Solitary tumors of similar microscopic composition may occur along the deep nerves, particularly of sciatic, ulnar and peroneal nerves, without the accompanying dermal manifestations of Von Recklinghausen's disease. All of these tumors are prone to recur after enucleation and to metastasize via the perineural lymphatics. They should be left alone or treated by complete excision.

**Perineural Fibroblastoma:** A definite variety of nerve-sheath tumor is known as benign perineural fibroblastoma. This tumor usually occurs as a solitary lesion along the peripheral or cranial nerves and is definitely encapsulated. It is a type of tumor of the peripheral nerves that can be shelled out without recurrence, but this is not altogether a safe procedure, since these tumors may undergo malignant change and recur after such treatment. The best example of perineural fibroblastoma occurs along the eighth nerve in the so-called cerebellum pontine angle tumors. These growths have a characteristic microscopic structure: Elongated spindle cells give rise to collagenous-like processes, which are arranged in parallel fashion, the nuclei occurring at regular intervals along the fibers and giving rise to so-called palisades. Under low-power magnification they may look like bunches of bananas grouped about the pink-staining intercellular substance.

**Sarcoma of the Nerve Sheath:** Sarcoma of the nerve sheath arises usually along the deep peripheral nerves of the extremities, at the sites where perineural fibroblastoma or neurofibroma may occur (Figure 3). The tumors tend to recur locally and metastasize along the perineural lymphatics, ultimately to invade the lungs and distant organs. They are rarely cured by resection and are radioreistant. Amputation is the treatment of choice for recurrent growths of this character. Microscopically the tumors are composed of elongated spindle cells with wavy nuclei. The cells are arranged in bundles, which may take on a whorl formation or give a herringbone effect. Myxomatous areas are frequent in the tumor and in the gross specimen may give these lesions a characteristic gelatinous appearance. The usual spindle-celled sarcoma of the soft parts is of this nature. The so-called myxoma of the soft parts also usually belongs to this category, although degenerating lipomas are sometimes classed as myxomas.

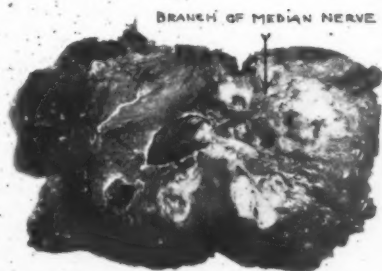


Fig. 3.—Path. No. 42608: Sarcoma of the nerve sheath recurring in the arm of a white female aged 29. The second operation was performed in 1930 and the entire tumor resected, with a branch of the median nerve.

**Benign and Malignant Ganglioneuroma:** A rare form of peripheral nerve lesion contains the characteristic spindle cells and fibrillar structure, seen in the benign nerve sheath tumors, and in addition many large ganglionic cells, with bulky cytoplasm and a distinct, peripherally-placed nucleus. These ganglioneuromas usually occur along the sympathetic nerves, but also have been observed on the spinal and cranial nerves. Although curable by excision, they may undergo malignant change.

**Sympathetic Nerve Tumors:** In addition to ganglioneuroma, chromaffin tumors, termed paragangliomas, and undifferentiated malignant neurogenic tumors, termed neuroblastoma, may occur along the distribution of the sympathetic nerves. These tumors rarely occur in the soft parts but are usually confined to definite sympathetic structures, such as the medulla of the adrenal or the carotid body at the bifurcation of the carotid vessels.

**Melanomas of the Soft Parts:** Recent evidence leaves little doubt that the benign and malignant pigmented mole is of neurogenic origin. The work of Masson has shown their intimate relation to nerve endings. Ferguson\* has shown recently, by using the technic of Zondek and Krohn (Zondek, B. and Krohn, H.: *Hormon Des Zwischenlappens Der Hypophyse 'Intermedin.'* *Klinische Wochenschrift*, Vol. 11<sup>2</sup>—p. 1293, 1932), that there are increased amounts of intermedin hormone from the middle lobe of the hypophysis in the blood of patients with malignant melanomas and that a similar reaction is given by sarcoma of the nerve sheath. This is another proof of the neurogenic character of moles. Moles with or without pigment may occur in the soft parts. These often are erroneously diagnosed angiosarcoma, endothelioma, etc. It is extremely important to remember that these melanomas,

\*Ferguson, Russell: *American Journal of Cancer* (to be published).

which resist radiation and require excision, may present themselves as primary tumors, without definite relation to the overlying skin.

**Tumors of the Glomus:** A nerve ending attached to the blood vessels, usually of an extremity, has been described under the name of Glomus. Simple hypertrophy or tumors combining both the neurogenic and angiomatous character, of this organ may be found in the fingers, arm or foot. The tumors are small, benign, but extremely painful. They are rare, but unless one is familiar with the nevus cells, proliferating about vessels and nerve endings, seen in these tumors, they are apt to be mistaken for sarcoma and treated too radically.

#### Fibroma and Fibrosarcoma

**Benign Fibromas:** Benign fibrous growths may occur in the subcutaneous tissues or arise from the fascia. A simple subcutaneous form, the keloid, is the result of scar tissue overgrowth and may be pedunculated. Another variety is the so-called desmoid, occurring in the sheath of the rectus abdominis muscle. The microscopic structure of these growths shows fibroblasts with a large amount of intercellular collagenous material. The more benign tumors are firm and encapsulated; the more cellular ones are soft and tend to infiltrate. The benign growths may be treated by simple excision.

**Fibrosarcoma:** The more cellular fibromas grade imperceptibly into fibrosarcoma. In the gross specimen they have a beefy and fleshy appearance, arise from the fascial planes and invade the surrounding structures. Microscopically they are tightly-packed spindle-cell growths, with a varying amount of intercellular collagenous substance. They must be distinguished from the more malignant sarcomas of the nerve sheath, which closely resemble them microscopically. Fascial sarcoma may be cured by wide excision or by amputation after recurrence. In neurogenic sarcoma, this is rare after recurrence has taken place.

#### Angioma and Angiosarcoma

The most common forms of angiomatous tumors are the hemangiomas and lymphangiomas—the first composed of new blood vessels or blood spaces; the other of lymph channels or cavities, both varieties appearing in either capillary or cavernous forms.

**Benign Angiomas:** The hemangiomas develop from telangiectatic defects in the vascular system. These defects are exaggerated capillary networks surviving from the embryo which, with subsequent growth (caused by some factor such as trauma), may undergo proliferation, giving rise to a tumor composed essentially of blood channels or spaces. The most common locations of the hemangiomas are the submucous or subcutaneous regions of the mouth and face, where the tumors shine

through the normal covering as blue or purple areas. They are usually soft and pliant to palpation. In a deeper location they are common in the muscle substance and may rarely involve bone. They have been described in most of the internal organs—liver, spleen, gastrointestinal tract, etc.

Microscopically the cavernous form of hemangioma is characterized by dilated blood spaces, lined by endothelium and surrounded by young myxomatous connective tissue. The capillary form shows narrow vascular channels, with a similar cellular structure in their walls. Both forms may show extremely cellular areas, in which young connective tissue cells predominate, but even when showing marked cellularity these lesions usually retain their benign characteristics.

**Lymphangiomas:** The lymphangiomas correspond in most respects to hemangiomas, except that their origin is in a network of lymph vessels and the channels enclosed by endothelium contain lymph instead of blood. Nodules of lymphoid tissue are found in the stroma. Small lymphangiomatous or hemangiomatous lesions, treated in an early stage, can be excised in their entirety with safety. When the tumors are large or so situated that their complete removal would be mutilating, irradiation should be used.

**Malignant Angiomas—Angiosarcoma:** Following injury, angiomas may develop malignant characteristics and metastasize. Such metastasizing angiomas are quite cellular, but they closely resemble the benign form. A definite malignant sarcomatous disease of the subcutaneous tissues, known as Kaposi's disease, has the characteristics of a true angiosarcoma. This disease gives rise to multiple, hemorrhagic, subcutaneous nodules and may develop after obstruction to the venous return in an area, the site of a former angioma. Large, malignant spindle cells are found amid vascular sinuses crowded with red blood cells. The disease is invariably fatal. Irradiation, combined with resection, should be tried in these malignant angiomatous conditions. They must be distinguished microscopically from hemorrhagic sarcomas of other types.

#### So-called Round-Cell Sarcoma of the Soft Parts

A group of tumors known as round-cell sarcomas may occur in the soft parts. Various types of metastatic carcinoma or malignant melanomas without pigment have probably been included, by the older authors, in this category. Tumors developing in lymphoid tissue in the soft parts, away from the lymphatic nodes, however do occur, and give rise to round-cell sarcomas. Some of these tumors are probably related to the reticulo-endothelial system. In all of them irradiation should be tried before operative removal.



**Diagnosis and Treatment of Soft Part Tumors**

Solitary nodules in the soft parts cannot be diagnosed clinically with any degree of accuracy. Before attempting to biopsy these lesions, to determine their nature, it is important to remember the dangers of incomplete

removal. The operation should be so planned that the nodule is completely excised, with a margin of normal tissue, so that the biopsy constitutes, at the same time, an adequate and complete treatment of all the smaller growths that are not multiple.

## Bismuth by Oral Administration in the Treatment of Syphilis

### (A Preliminary Report)

By Reed O. Brigham, M.S., Ph.D., M.D., Toledo, Ohio

THE use of bismuth in the treatment of syphilis has been practiced for a number of years and rapid development in this line of medication has resulted. Animal experiments and clinical results show that bismuth is a more pronounced spirocheticide than mercury, but not so powerful as the arsenicals; however, over long periods of time, it is equally effective and not so dangerous.

Levaditi and Fournier<sup>1</sup> have shown in their experimental work that spirochetes in animals, effectively given bismuth, show progressive alterations. They lose the regularity of their undulations, become rod-like, show moniliform swellings, break up and become transformed into granules showing an affinity for silver, and are absorbed by the elements of the reticulo-endothelial system. Simultaneously the lesions disappear; therefore, there can be no doubt that bismuth brings about, in vivo, an involution of the spirochetes, with their final destruction and complete loss of virulence.

Some syphilographers use only bismuth and, in a large number of cases, believe it to be equal to the other metals in therapy; however, most of them prefer to take advantage of most of the other agents also.

Therapeutic results of a treatment must be considered under four heads:

1: The action upon the spirochete, for which bismuth has been shown to have a definite toxic action.

2: Influence upon the specific lesion. Bismuth causes this to heal quickly.

3: The influence upon serologic tests. Bismuth has rendered these reactions negative, including the Wassermann and Kahn tests.

4: Improvement of clinical symptoms, which is shown in case histories.

The usual method of administering bismuth has been by intramuscular injections, but these, whether soluble or insoluble or in whatever form used, always produce more or less

pain, with the danger of a cold abscess. The intravenous route for the administration of bismuth often causes severe reactions and even death, as it is ten times as toxic intravenously as intramuscularly, and the Council of Pharmacy and Chemistry has advised against this type of administration.

Since these methods are not entirely satisfactory, about four years ago I began the oral administration of bismuth, which had been used to some extent in Europe, in conjunction with arsphenamine and without it, in primary, secondary, tertiary and congenital cases. The results have been very satisfactory. In several Wassermann-fast cases, under arsphenamine treatment, the reaction has become negative under the oral administration of bismuth. In tabes dorsalis cases the pains in the limbs and the general condition of the patient have improved rapidly and markedly. With the oral administration of bismuth, old cases have shown very marked clinical improvement, and several cases which showed mental symptoms cleared up.

I use this drug routinely in conjunction with arsphenamine, because I believe bismuth to be superior to mercury in the treatment of syphilis. Iodides are combined with the bismuth where iodine therapy is indicated for the resolution of granulomatous tissue in old cases.

The oral administration of bismuth is not a cure for syphilis in all cases, but it is a valuable adjunct in the treatment of syphilitic patients. It may be used in any stage of the disease, and at times it may be admissible to alternate it with mercury, to prevent a possibility of acquiring a "fastness" to bismuth on the part of the spirochete.

The preparations of bismuth may be classified as metallic bismuth, the organic salts, the inorganic salts and the alkaloidal derivatives. Soluble bismuth lactate (one of the organic salts) has a strong spirocheticidal action, but often causes a destruction of the tissue at the site of introduction. When given by mouth to a rabbit, this preparation resulted in the dis-

1.—Levaditi, C., and Fournier, L.: The Value of Bismuth Therapy in Syphilis. *Lancet* (Lond.), April 7, 1928.

appearance of all organisms in five days. No matter in what form the bismuth is given, it is the metallic bismuth that exerts the effect. The bismuth compounds are dissociated into the metal, which combines with the organic substances of the liver, brain, kidney, ovary, suprarenal glands, spleen and other organs, as reported by Shamberg<sup>2</sup>, and the excretion of bismuth takes place in the urine, feces, bile, saliva, sweat and tears.

There has been some question as to the absorption of bismuth when given by mouth, and perhaps the quantity absorbed is not certain, but animal experiments show good effects when the bismuth is so administered. In my work with patients, I have found that, by giving large doses of bismuth, toxic symptoms similar to those of mercury occur—salivation and soreness of the gums and teeth. There is also a blackening of the tongue, which comes from the excreted bismuth in the saliva. Bismuth polyneuritis has been reported following the administration of bismuth by mouth.

Shamberg<sup>2</sup> states that bismuth acts favorably in relieving vertigo, meningoradicular pains and the lancinating pains of tabes.

The preparation of bismuth used is a concentrated solution of bismuth tartrate or *Glyceritum Bismuthi* of the "National Formulary," and the dose recommended is 10 minims (each fluid ounce contains 16 grains of bismuth and sodium tartrate), but this is frequently doubled in robust patients.

In the following cases I administered glycerite of bismuth by mouth. The dose varied, according to the individual and his tolerance, from 10 to 20 minims (0.65 to 1.3 cc.) three times a day, in all cases.

#### Case Reports

**Case 1:** Female, age 30, 2 children, past clinical history of no special value.

April 1, 1930, Wassermann and Kahn tests, 4 plus. Diagnosis, late secondary syphilis. The patient was given eight treatments of neoarsphenamine (0.6 Gm.) and oral administration of bismuth.

June 2, 1930, the Wassermann test was negative; Kahn test, 3 plus.

The patient was given four injections of sulpharsphenamine and two of neoarsphenamine, together with bismuth, and, from October 1 to November 1, bismuth solution only.

In November, the Wassermann test was negative; Kahn test, 3 plus. Another month of bismuth was repeated.

On July 20, and November 9, 1931, the Wassermann test was negative; Kahn test, 1 plus.

Bismuth was again administered orally and, on March 6, 1932, the Wassermann test was negative; Kahn test, 1 plus.

**Summary:** Since September, 1930, the pa-

tient has had nothing but bismuth by oral administration, and the Wassermann test had become negative and remained so, while the Kahn test has been reduced from 4 plus to 1 plus.

**Case 2:** Male, age 36. This patient had had no symptoms whatever, and was apparently in excellent health. In December, 1927, his wife was delivered of a baby, which lived but three days and showed leucic symptoms. Her Wassermann test was 4 plus, and his was also 4 plus. The diagnosis was secondary syphilis.

**Treatment:** He was given 10 injections of sulpharsphenamine, intramuscularly, and on May 8, 1929, his Wassermann test was 4 plus. The patient did not wish any more hypodermic medications, and from May 14 to July 15 he took bismuth by oral administration.

On February 7, 1930, his Wassermann test was 1 plus, and from March 15 to April 16, 1930, he again took bismuth orally, and the Wassermann test was then less than 1 plus and has since remained practically negative.

His wife received similar treatment and the Wassermann test remained positive until after the oral administration of bismuth, when it appeared similar to that of her husband.

**Case 3: History:** Female, age 52; past menopause for three years; complained of feeling "poorly." Pains in the back of the head, usually came on during the night or in the morning; she also had pain in the right shoulder and was unable to use the arm much.

**Diagnosis and Treatment:** On September 21, 1928, her Wassermann test was 3 plus—late secondary syphilis, possibly congenital.

The patient received oral administration of bismuth and some iodine, intermittently for a year, and on March 19, 1930, her Wassermann and Kahn tests were negative.

**Case 4:** Female, age 24 years, divorced; had enlarged inguinal glands and severe headaches, which came on about twice a week.

**Diagnosis and Treatment:** On November 8, 1926, the Wassermann and Kahn tests were 4 plus (secondary syphilis of three or four years) and the patient received 5 injections of sulpharsphenamine.

On March 7, 1929, the Wassermann and Kahn tests were 4 plus, and the patient received 6 injections of sulpharsphenamine and two of neoarsphenamine, with oral administration of bismuth.

On June 27, and December 9, 1930, and November 6, 1931, the Wassermann and Kahn tests were negative.

**Case 5:** Male, age 35; no history of previous illness. Microscopic darkfield examination revealed active spirochetes from a primary chancre of the penis.

The patient received 8 injections of neoarsphenamine and was given oral administration of bismuth. During treatment he developed an inguinal adenitis, with abscess and sup-

2.—Shamberg, Jay F.: "Treatment of Syphilis." D. Appleton & Co.

puration. On March 7, 1931, his Wassermann test was negative.

*Case 6:* Female, age 24, married. Had received treatment for syphilis previously.

*Diagnosis and Treatment:* September 20, 1929, the Wassermann test was 4 plus—secondary syphilis, contracted from husband about four years previously.

The patient received oral administration of bismuth for two months. On August 22, 1930, the Wassermann test was 3 plus; Kahn test 4 plus. Patient again received oral administration of bismuth and clinically she felt much better.

On January 15, 1932, the Wassermann test was 4 plus; Kahn test, 4 plus, and the patient was feeling poorly. She had pains throughout the muscles and joints and was extremely nervous. Again bismuth was given orally, and one month later the pains had subsided, particularly the abdominal pains, the patient no longer felt nervous or disposed to crying and was in good condition clinically. On January 16, 1933, the Wassermann test was negative; Kahn test, 3 plus.

*Case 7: History:* Female, age 38, unmarried, complained of severe attacks of migraine, occurring two or three times a month, with periods of mental depression.

*Diagnosis and Treatment:* Congenital syphilis. Treated with bismuth and iodides. Headache ceased and the periods of mental depression cleared up.

*Note:* This patient was one of thirteen children, all of whom showed evidences of congenital syphilis. Another sister was treated with arsphenamine and later by the oral bismuth method, producing equally beneficial results. Two others of the family, who had migraine and other neurologic symptoms, were treated and markedly improved, clinically, by the oral administration of bismuth.

*Case 8:* Male, age 30. March 30, 1928, the Wassermann test was 4 plus. One year previous to this date the patient had had 6 injections of some arsenical preparation.

*Diagnosis:* Secondary syphilis of about a year's duration. *Treatment:* To May 26, 1928, the patient received 8 sulpharsphenamine injections, intravenously, 0.6 Gm. each.

On July 28, 1928, the Wassermann test was 4 plus; Kahn test, negative. August 11 to October 1, 1928, he received bismuth and iodides, by oral administration, and on December 29, 1928, and February 25, 1929, his Wassermann and Kahn tests were negative.

From February 25, to April 1, 1929, the patient received bismuth and iodides, by oral administration, and on July 16, 1929, the Wassermann and Kahn tests were negative.

This last course of bismuth was given because the patient complained of clinical symptoms—pains and nervousness—while the serologic tests were negative.

On October 23, 1929, the patient contracted gonorrhea and a lesion on the penis, with inguinal adenitis. There was a possibility here of another syphilitic infection, as the Wassermann and Kahn tests were again 4 plus.

The patient then went to a free clinic.

*Case 9:* Female, age 38, divorced, had a rash and gave a history of exposure to syphilis six months previously.

*Diagnosis and Treatment:* On December 6, 1932, the Wassermann and Kahn tests were 4 plus—secondary syphilis.

She received 8 intravenous injections of nearsphenamine, with the oral administration of bismuth, and on March 20, 1933, the Wassermann and Kahn tests were negative.

This case is still under observation, but it shows that the bismuth has been of some value, with a limited amount of arsphenamine, to render the serologic reactions negative.

#### Summary

1.—Animal experiments and clinical results show that bismuth is valuable in the treatment of syphilis.

2.—Clinical and serologic results, upon patients treated with bismuth by oral administration, have shown marked improvement and negative reactions.

3.—Results warrant further studies and use of bismuth by oral administration in the treatment of syphilis.

4.—Bismuth is of value also in arsenic-resistant or Wassermann-fast cases, for patients intolerant to arsenic or as an adjunct to arsenical therapy.

1930 Monroe Street.

#### ACTION AND REACTION

*If we observe the law of action and reaction, we shall find our burdensome periods in life are always the forerunner of better things. All nature in its varied scenes is but a living example of this great fundamental law. Out of the storm into the sunshine; out of the thicket into the clearing; out of the valley into the heights. "He that humbleth himself shall be exalted." We are humble now, but we can make this experience a stepping stone to better things, which are surely coming.—LEROY D. PEABY.*

# Non-Specific Iodine Therapy In Vasomotor Rhinitis\*

By Clarence R. Straatsma M.D., F.A.C.S., New York City

THE term, "perennial hay-fever," applied to vasomotor rhinitis, conveys the implication that the latter is etiologically akin to hay-fever, except insofar as its non-seasonal characteristics are concerned. But does not this reservation, in itself, disprove any fundamental relationship beyond the similarity of manifestations? In pure seasonal hay-fever, we know that certain types of pollen give rise to paroxysmal sneezing spells and copious watery discharge from a turgescent nasal mucosa, because there exists in the patient's blood a specific sensitizing substance corresponding to the offending pollen. Admittedly, the symptoms and manifestations of vasomotor rhinitis point to hypersensitivity and occasionally the most painstaking and elaborate diagnostic efforts may reveal one or more specific offenders, such as foods or inhalants, but as a general rule our findings are apt to be negative and we can only assume that vasomotor rhinitis is a constitutional disease, categorically belonging to the allergic group, with hay-fever and bronchial asthma.

Our increasing knowledge of seasonal hay-fever enables us to meet the exigencies of each individual case with specific therapeutic measures, which have attained a commendable degree of efficacy. Specific pollen antigen therapy can, today, be relied upon to yield gratifying results in practically every instance where the offending substance has been accurately determined by means of dermal tests or otherwise.

In contradistinction, vasomotor rhinitis presents a far greater problem, with its etiologic obscurity and perplexing symptom complex. The most unfortunate patient is the one who is harassed almost daily, irrespective of season, by violent sneezing spells and copious watery nasal discharge, which necessitates constant use of handkerchiefs. Others have spasmodically recurring attacks, which they are unable to attribute to any definite cause or condition. Then we have the type which reacts to sudden temperature changes, drafts, cold water, etc.

When our complete diagnostic resources are exhausted without revealing the underlying pathologic cause, there is no choice but to resort to non-specific treatments, even though such empiric measures may only produce temporary symptomatic relief.

There are several remedies on the market

which are said to possess therapeutic merits in the treatment of vasomotor rhinitis, but they usually disappoint when clinically tested, and while an occasional patient may respond, they can hardly be said to possess any practical value. I have found that homiodin (Iodomine) is a conspicuous exception to this rule and, because of the encouraging results obtained during the past year, I deem this recent pharmacologic contribution worthy of more than passing consideration.

Homiodin was originally introduced as iodomin and is a solution of sodium iodide, containing traces of free iodine. It is injected subcutaneously in 1 cc. doses (ampules) and its pure iodine content is exceedingly low. I regard this factor as a distinct advantage, because of the unpleasant reactions which often follow the administration of excessive doses of iodine. (Irritation of the nasal mucosa; aggravation rather than stimulation of coryza, bronchitis, laryngitis, etc.) The only untoward reaction I have ever observed from the use of this product is that some patients complain of a burning sensation at the point of injection. This drawback is unimportant, however, as it applies only to a minority of patients and the reaction disappears completely in less than five minutes.

The cases chosen for the test at our Clinic and in my private practice were largely of the most refractory types of vasomotor rhinitis, which had failed to respond to every other form of treatment, including potassium iodide by mouth and intravenous injections of sodium iodide. A total of 32 cases are included in this series, of which one-half were private patients. Treatments were given on alternate days or at least twice weekly and, because of the well-known paradox that clinic patients are prone to disregard the necessity for cooperation, the results obtained in these cases were not so gratifying as those observed in my private patients.

It is exceedingly difficult, if not impossible, to predict how a specific case of vasomotor rhinitis will respond to homiodin treatments. The degree of chronicity does not appear to be a reliable guide. In fact, I have observed cases of more than five years' standing respond more readily than have patients suffering from vasomotor rhinitis less than one year.

Out of the 32 cases treated with homiodin, 13 appeared to be completely cured. Most of these showed a marked improvement after

\*From the Service of Dr. Harmon Smith, of the Manhattan Eye, Ear and Throat Hospital.

the second or third injection. The sneezing spells and watery discharge would cease with the disappearance of nasal turgescence and the patient would voice a feeling of well-being. This observation of subjective improvement is interesting, because it may reasonably be interpreted as confirming the belief that vasomotor rhinitis is, in fact, a constitutional disorder. These patients received from four to eight injections and there have, as yet (after two months or more), been no recurring attacks of vasomotor rhinitis.

Of the remaining 19 patients, 12 were markedly improved after having received from five to ten injections. It is my belief, however, that had some of the clinic cases belonging to this group followed instructions to appear twice weekly for treatments, they might have been completely relieved of their condition. Most of the remaining 7 cases were clinic patients, a few of whom failed to return after the second or third treatment. The others received as many as ten injections, without any apparent improvement.

Whereas my experience with homiodin has been strictly confined to cases of vasomotor rhinitis, Rosenberg<sup>1</sup> studied its value also in the treatment of acute catarrhal otitis media and observed: "I had, first, occasion to administer iodomin (homiodin) in a series of middle ear conditions, all revealing the characteristic catarrhal symptoms. They were refractory types of several months' standing. Subcutaneous injections of homiodin were administered two or three times a week. Some cases responded quickly (after the second or third treatment), whereas others would be less yielding, requiring as many as eight or ten

injections. The results as a whole were highly gratifying."

Levine<sup>2</sup> tried homiodin in a series of 20 cases of common cold and found that "Most patients remarked on the ease with which they could breathe soon after the injection, due to the shrinkage of the congested membrane. In the majority of cases all symptoms of coryza subsided and did not recur. On the whole, however, results were not quite so gratifying as in vasomotor rhinitis, probably because it is difficult to see patients at the very beginning of a common cold."

Sufficient time has not elapsed since I concluded my test to permit a definite statement as regards the duration or permanency of the relief attainable with these treatments in vasomotor rhinitis. Among the group of patients who were moderately benefited I have observed, in a few instances, recurring attacks which were, however, controlled by administering a few additional injections.

### Conclusions

In a series of 32 cases of vasomotor rhinitis, homiodin (iodomin) treatments appeared to benefit all but 7 patients. Thirteen (13) cases were completely relieved of all symptoms and 12 patients, while not cured, were markedly improved. Five to ten injections were administered, on alternate days or twice weekly.

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899 Park Avenue.

## VACATIONS

*The need for vacations is not due to work, but to worry; not to the regular departure of the 7:45, but to the dissatisfaction, boredom, ennui and repeated irritations associated with the work that is done . . . Life that is satisfying has all the elements of a perpetual vacation.*—DR. JESSE F. WILLIAMS, in "The Business Man and His Health."

## WHAT ABOUT PRAYER?

*Whether or not material things can be obtained through rest, meditation and prayer, may be open to argument. Honest people may be found on both sides of this question. There, however, is no doubt that decisions are largely spiritual problems. The Bible promises, which have come down through the ages, as to asking and receiving, certainly apply to such basic gifts as wisdom, self-control and courage. As these are the great things needed today, is not this a time when a consideration of spiritual power is most vital and practical?*—ROGER W. BABSON.



# PHYSICAL THERAPY AND RADIOLOGY

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## The Physical Therapist in Court

A PHYSICIAN may occupy the seat of honor in court as an expert witness and medical counsel or, more frequently, the seat of dishonor as defendant in a malpractice suit. Malpractice insurance costs the electrotherapist considerably more for considerably less than is afforded the physician who does not avail himself of electrical appliances in his practice. For this harsh and disparaging discrimination, physical therapists have only themselves to blame. An ever increasing number of suits, incurred through untoward results of unskilled and careless applications of physical therapy agencies, justly reflects upon the practical ability of a large portion of the profession.

As a physical therapist, the physician is not only called upon to exercise "that reasonable degree of learning and skill that is ordinarily possessed by physicians and surgeons in the locality where he practices" but, additionally, is required to qualify in the theory and practice of a most important and scientifically demonstrable form of therapy. Whatever differences of opinion may arise as to the merits and demerits of medical and surgical treatment in any given case, the results arising from various physical therapy agencies are to be unhesitatingly and impartially testified to through an assured knowledge of the physics and physical characteristics of such agencies.

"The attitude towards medical science is, not merely one involving a lack of enthusiasm and indifference to benefits conferred,

but is rather one of actual opposition"; and malpractice suits are too often occasioned by the unprofessional attitude of jealous and unethical colleagues. But suits instituted for physical therapy reactions alleged to have damaged the patient, instead of benefiting him, usually present such visual and other unimpeachable evidence as to leave the defendant physician with no credible defense.

The surgeon who skillfully operates the "cutting" end of a high-frequency current, but omits to supervise the equally important placing and *retention* of the dispersive electrode by an intern, may not legally sustain financial damages for an ensuing burn, but certainly will not enhance his professional reputation thereby. The application of a copper vaginal electrode, thinly covered with cotton, for twenty minutes with a current of 50 milliamperes, is more conducive to a painful and serious electrolytic reaction than to the dispersal of a fibroid. To continue high-frequency, galvanic and sinusoidal current applications, callously ignoring the patients' complaining reactions to them; and to leave the patient alone without instructing him how to reduce or disconnect the current conveniently and instantaneously, neither evinces expertness nor even common sense. A colonic irrigation, with the water so hot as to create a painful and even serious degree of heat in its passage through a metal proctoscope, will invalidate any subsequent claim upon the part of the operator to possess "a reasonable degree of skill." Articulator and

traction treatments are too frequently given with the apparent purpose of demonstrating their similarity to the rack of medieval torture days, than as modern beneficial applications. Excessive, painful reactions from ultraviolet radiation admit of no justification, if and when administered and readministered to a dissatisfied and grumbling patient.

Our somewhat extended experience as medical counsel and expert witness demonstrates that the greater proportion of physical ther-

apy malpractice suits are due to carelessness and ignorance, both faults being equally predominant among otherwise well qualified physicians, as well as among imperfectly educated cultists. Physical therapy may not necessarily be considered a specialty, but it requires the same degree of expertness and attention to details that surgery demands, in order to achieve desired results with a minimum of undesirable reactions.

J. E. G. W.

## Effects of Sinusoidal Stimuli on Gastric Acidity

By Harold Neifeld, M.D., Brooklyn, N. Y.

THOUGH the intraventricular (intra-gastric) application of electricity, through specially constructed "deglutible" stomach electrodes, has been considered more successful<sup>1</sup> than the extraventricular application, nevertheless sound scientific evidence exists that the direct application of electricity to the gastric mucosa is of no import: Pawlow<sup>2</sup> showed that mechanical stimulation of the gastric mucous membrane has no effect on the secretion of the tubules; while Freund<sup>3</sup> found that the only effect of direct action of electricity on the gastric secretion was the production of a small amount of a strongly alkaline mucoid substance. Hence, in this study of the effect of the sinusoidal current on gastric acidity, the extraventricular method has been employed.

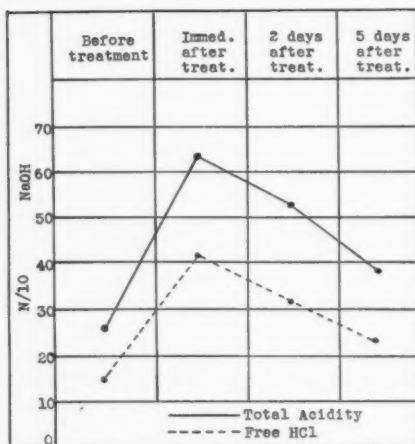
Twenty-four (24) subjects were kept on a uniform diet for three days. On the morning of the fourth day, one hour after a test meal,\* the gastric contents were extracted through a Rehfuess tube and the total acidity and free hydrochloric acid were determined.

\*All test meals were given on an empty stomach, as is customary.

On the fifth, sixth and seventh days, after metal plates covered with moistened cotton had been applied anteriorly, over the area of

### TESTS ONE HOUR AFTER TEST MEAL

Case No.	Total Acidity				Free HCl			
	Before treat	Immed. after treat	2 days after treat	5 days after treat	Before treat	Immed. after treat	2 days after treat	5 days after treat
1	20	50	42	32	12	30	24	16
2	30	76	64	50	18	46	38	28
3	26	64	48	34	15	38	30	22
4	38	82	64	50	20	52	44	32
5	36	78	68	52	22	56	42	30
6	32	70	50	42	20	50	42	28
7	26	64	52	44	18	48	38	28
8	22	50	42	34	14	38	24	18
9	20	48	42	32	12	32	26	20
10	26	60	50	38	14	32	28	22
11	26	68	56	48	13	36	26	20
12	24	60	44	34	12	34	28	18
13	40	90	68	58	22	60	48	32
14	18	42	34	24	8	24	18	14
15	14	34	24	16	0	22	18	6
16	30	74	68	54	22	58	48	34
17	14	34	20	22	4	20	12	10
18	34	72	54	38	24	56	46	30
19	20	48	36	28	18	28	20	18
20	28	52	44	34	20	42	32	28
21	34	72	56	38	18	38	28	22
22	40	76	68	54	22	42	38	22
23	32	76	52	42	26	64	26	36
24	38	80	62	50	18	50	32	24
Aver.	27.83	63.33	50.33	39.50	16.33	41.50	31.50	23.25



the stomach (previously outlined by fluoroscopy) and over the lower dorsal vertebrae posteriorly (splanchnic nerves), the current, with thirty interruptions per minute, was turned on, gradually increased to the point of greatest comfortable tolerance (usually 15 to 20 milliamperes), and kept so for twenty minutes. Immediately following the last treatment (seventh day), after another test meal, the stomach tube was again passed and the extracted gastric acids determined. Two days later, following another meal, the tube was again passed and the stomach acids once more studied. Five days after the last treatment, the process was repeated, as a final observation.

From the table and graph herewith, it will be noted that, immediately following treatment, there was a marked rise in both the total acidity and the free HCl. On the fifth day after the last treatment had been given,

the acidity, though still increased, had more nearly approached the pre-treatment analysis. In other words, there had been a constant, gradual decrease in the gastric acidity from its high-point, immediately following the last sinusoidal treatment, toward but not down to the level of the pre-treatment analysis.

Whether the effect of the extraventricular application of the sinusoidal current is due to a direct stimulation of the splanchnic nerves is questionable; for, though they contain vasoconstrictor<sup>1</sup>, vasodilator<sup>2</sup> and inhibitory<sup>3</sup> fibers, yet, the motor<sup>4</sup> and all the secretory fibers<sup>5</sup> are supplied through the vagus nerve. Moreover, the musculature of the stomach, through plates applied to the abdominal wall, is incapable of direct excitation by any of the currents employed in electrotherapy<sup>6</sup>. Furthermore, that the gastric acidity can be reflexly affected has been demonstrated by the psychic secretion of digestion, the efferent<sup>7</sup> stimuli of which originate in the mouth and nostrils.

The sinusoidal current, therefore, increased gastric acidity (probably reflexly), and should be therapeutically administered at least once every five days, in appropriate cases.

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167 Willoughby St.

## NOTES AND ABSTRACTS

### "It Will Plug In" Will It?

IS THERE a doctor in the entire medical profession who has not heard these words, "It will plug in," so glibly spoken by the salesmen for the various kinds of apparatus using electricity, developed by our numerous scientific laboratories during the past five or ten years?

It seems to the salesman that the most important point is to drive home the idea, "it will plug in," in the final argument for the sale of any electrical addition to the ever-increasing laboratory equipment of the profession. Sometimes he speaks the truth, but

mostly his statement does not accurately cover the real facts in the case. No doubt, it will plug into the socket, but what about the other factors, such as current consumption of the article; capacity of the socket and circuit load on which the socket is connected; wire-size and safe fusing limit for the article and circuit? It is hardly fair to the physician, who is constantly striving for the benefit of humanity, to state anything but the complete facts and abide by his decision.

### Protective Regulations

Electric wiring in our modern buildings is



governed by the rules and regulations of the National Board of Fire Underwriters, State Department of Safety and, within any incorporated city, the city electrical department, with its staff of inspectors. These rules have been developed during the past thirty years and today represent the highest factor of safety in electric wiring for the protection of fire and electric hazard for each individual and the community at large. They are changed and added to from time to time, as new facts and experience present themselves, but always with the one idea in view, *safety*.

Under the regulations of the National Board of Fire Underwriters, every piece of apparatus consuming electrical energy must have, plainly stamped thereon, the manufacturer's name and address, the voltage of the circuit on which the device is to be used and the amperes or watts it will consume. If this information is not given, one may rest assured that the appliance has never been tested and approved for your use by the laboratories of the National Board of Fire Underwriters.

Most electrical receptacles in our buildings are wired for a capacity of 100 watts and one is, therefore, safe with any device not using more than this amount—"it will plug in" and operate. Should the name-plate show a larger consumption, it behooves one to check the circuit on which the receptacle is connected and, if the consumption on the device is over 660 watts, it will be necessary to install wiring adequate to handle the load. Therapy lamps use from 200 to 2000 watts; sterilizers average from 300 to 1700 watts; heating lamps use 500 to 1000 watts; and the large x-ray machines take between 10 and 60 amperes, at a voltage from 110 to 220.

Suppose you, yourself, were to become the patient of some physician and, upon entering his treatment room, found it littered with electric cords, in a more or less dilapidated condition (as such cords will get), and, during your treatment, the fuse would blow or the cord become undone. Would it not arouse a suspicion in your mind as to the ability of that particular member of the profession to use such apparatus?

#### Reduce Fire Hazards

Fuses, like safety valves on boilers, are inserted in each circuit for the protection of the apparatus and wiring. One would not sit on a safety valve to increase the steam pressure; so why increase the capacity of the fuse or supplant it with copper, as is sometimes foolishly done as a temporary measure, but generally ends in grief? Its protection is thereby eliminated and, should any trouble occur, the damage to one's property may

easily pay for the small cost of additional wiring for adequate protection to expensive appliances. One may look at it as insurance and, the next time one hears, "it will plug in," investigate and insist that the needed wiring be done, and, of most importance to the user, inspected by the local department having jurisdiction. Inspectors are always willing to assist in reducing the fire hazard in one's office.

The reduction of these hazards throughout the city indirectly puts money into your pocket by lowering insurance premiums and providing less chances of interrupting your income by the loss of your office and equipment.

CARL H. GORING\*

Hollywood, Calif.

#### Tonsillectomy in the Tuberculous

ALTHOUGH the general advantages of the removal of infected tonsils is recognized yet, in the presence of pulmonary tuberculosis, surgical removal is not always advisable.

In *Illinois M. J.*, Feb., 1932, Dr. A. R. Hollender, of Chicago, shows the possibility of removing the tonsils in the tuberculous by fractional extirpation by electrosurgery. A total of more than 200 electrocoagulation treatments was given to 20 such patients, without harmful reactions and with no deleterious influence on the pulmonary disease.

#### The Skeleton Barium Meal in Gastric Diagnosis

THE STUDY of the gastric mucosa is now a valuable supplement to the usual radiologic investigations and the method of the "thin film" or skeleton meal reveals details that cannot otherwise be discovered.

In *Brit. M. J.*, Nov. 21, 1931, Dr. D. T. Overend credits Forssell as originating this method, the further evolution being due to many investigators. Different solutions and suspensions have been used and the author gives the following as one well adapted for adherence to the mucosa: 10 ounces of barium sulphate and 50 grains of tragacanth powder, made up to 20 ounces with chloroform water. By palpation and changes of posture, after a sip of the barium mixture has been swallowed, the barium is spread over the mucosa and the patient examined in the prone position with graduated compression. The

\*Mr. Goring, formerly city electrician of Ensanada, Mexico, has spent twenty-six years in electrical work. His experiences with the electrical problems of Los Angeles, California, physicians during the past few years inspired this instructive and helpful article.—Ed.

principal sites of ulcer should be screened at different stages of filling.

The author discusses the normal appearances and those in gastritis, peptic ulcer and carcinoma. In the case of ulcer, direct evidence is given by the actual niche. Duodenal ulcer can often be diagnosed by the skeleton meal, but this is especially well adapted for the diagnosis of jejunal and gastro-jejunal ulcers and also for the differentiation between ulcer and diverticulum.

In *Radiology*, Feb., 1932, the Cole collaborators present an elaborate history of the roentgenologic explorations of the mucosa of the gastro-intestinal tract. From this it appears that L. G. Cole, in this country, as far back as 1909, for the purpose of showing the mucosal folds, used the principle of sedimentation of bismuth subnitrate from a watery suspension as a special technic for the demonstration of the mucosal pattern on the anterior and posterior walls. He also uses a thick paste of barium and water, which leaves a thin coating of barium on and between the folds of the mucosa, for demonstration of the mucosal surface.

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## BOOKS

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### Clephan and Hill: Radium

**A**N ELEMENTARY HANDBOOK ON RADIUM AND ITS CLINICAL USE. By D. F. Clephan, Full Time Assistant under the Medical Research Council at the Barnato Joel Laboratories Middlesex Hospital, and H. M. Hill, Radium Officer at the Royal Free Hospital. London: Humphrey Milford, Oxford University Press. 1933. Price \$2.00.

The use of radium is now such an important and generally used therapeutic measure that all physicians need to be familiar with its properties and powers, whether they plan to employ it themselves or not.

This little volume contains the essentials of the subject, including the physical properties of the radiations used, the principles of treatment, details of technic and results obtained. The modest price will permit its inclusion in any library, though it is rather elementary for those who are specializing in radiology.

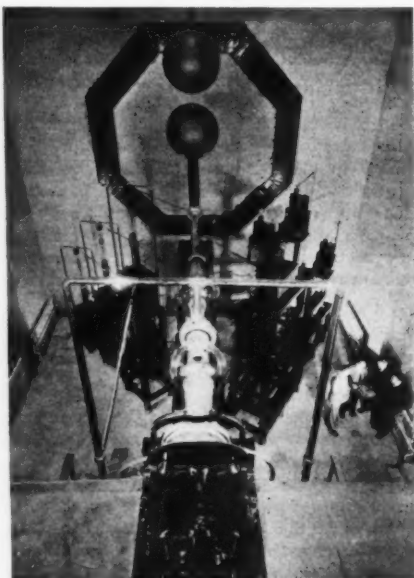
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## NEWS NOTES

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### Spas in Germany

**G**ERMANY has more medicinal springs than any other country in the world—216 altogether—and in 1931, in spite of the "depression," there were more guests at her spas than at any time prior to 1914.



(c) Keystone View Co.

### Giant X-Ray Tube in Chicago

**H**ERE is the answer to the high cost of radium—a gigantic x-ray tube, which can operate continuously at 800,000 volts and gives off rays as short and powerful as the gamma rays of radium.

This huge machine, the most powerful in the country, has recently been installed in a specially constructed wing of Mercy Hospital, Chicago, where our associate editor, Dr. Henry Schmitz, can play with it.

The size of the apparatus can readily be estimated by comparing it with the men shown at the right. All medical visitors at the Century of Progress Exposition ought to see it.

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### Congress of Physical Therapy

**T**HE twelfth annual scientific session of the American Congress of Physical Therapy will be held at the Palmer House, Chicago, Ill., September 11 to 15, inclusive, 1933.

These meetings are always of great interest and value to all clinicians, especially those who are using physical therapy extensively, and this year the committee promises an unusually fine and varied program of clinics and addresses.

Wise physicians will make their arrangements to attend these meetings and see the Century of Progress Exposition at one trip. Hotel reservations should be made at once. Write to the Executive Secretary of the Congress, at 30 No. Michigan Ave., Chicago, for full particulars.

# STOMATOLOGY

OFFICIAL ORGAN OF THE  
AMERICAN SOCIETY OF STOMATOLOGISTS

ASSOCIATE EDITOR

ALFRED J. ASGIS, ScB., M.A., D.D.S.

## Dental Journalism, Independent and Free

WITH fairness in judgment, abundance of data, sufficiency of facts and a determined spirit to strike a death-blow to what the American College of Dentists considers dentistry's greatest enemy to professional progress; namely, trade-house-controlled journalism, its Commission on Journalism records its findings in the report, "The Status of Dental Journalism in the United States," just published under the guidance of its chairman, Dr. Bissell B. Palmer, and Erwin A. Johnson, John T. O'Rourke, Benjamin S. Partridge and Edward B. Spalding. It may seriously be questioned whether any arguments are left to defend proprietary journalism after reading this survey. The College and the Commission have successfully performed this task.

Beginning our career in stomatologic literature in 1923, we defended the doctrine the Commission now so forcibly champions, the development of independent professional journalism in dentistry. We added to the objective of "Independence" the ideal of *freedom*, because we believe that, for dental journalism to become *truly* independent, it must also become free to receive new ideas and permit their unrestricted public expression. This is the policy pursued in these pages, and in this spirit we join with the Commission in praise of the highly commendable efforts of Professor William J. Gies, who, making many personal sacrifices, has created an outstanding contribution to dentistry, in the development of the *Journal of Dental Research* and founded the International Association for Dental Research. The apathy and indifference of dentists in the past toward good literature and research made

this task still harder in producing a journal of such excellence, which dentists and physicians should continue to support.

Other dental journals of merit are given due credit. We take pride that CLINICAL MEDICINE AND SURGERY, the first general medical journal in America to include dentistry as a regular medical specialty, is independent and its stomatologic policy is under the supervision of a dental organization.

Professional versus proprietary control is the main issue. The major attack and the main discussion is centered around this. Proprietary control is objectionable, showing its degrading influence in the spheres of "dental journalism, dental education, dental research, dental organization and dental economics." This is most significant, bearing in mind desirable reforms. This undesirable influence in journalism can be stopped in two ways; by the "immediate increase of the publishing capacity of non-proprietary journals" and by withdrawing support, financial and literary, from proprietary publications. Concentration on the former, we consider really constructive.

To carry out the former plan, the Commission takes a definite stand on the three points related to "income": (1) Acceptance of reliable advertisements as a *source of income* is not objectionable in principle; (2) *advertisements* in a journal do not effect its non-proprietary status; and (3) advertisers are entitled to receive *value in return* for their investment. This clarification is the most practical contribution made to date, bearing on the statement of the problem. *Evolution*, recommended by the Commission, is thus made

possible by placing dental publishers and dental advertisers on an honorable plane in conducting their business without the need of sacrificing either the ethics or professionalism of dentistry.

Guided by this spirit, stomatologists should at once launch a campaign for reputable advertising among dental manufacturers, dental supply houses and dealers, and dental laboratories, inviting them to take space in this Journal. The oral clinician, whether his chief interest and practice lies in *diagnosis* or *medico-surgical* and *functional* (prosthetic) therapy, needs the manufacturer and laboratory, and they need him. The professional journal is the most practical means of bringing them together. The income from advertisements will relieve the Society from being heavily taxed, as in recent membership campaigns. Besides, the Society's funds could very profit-

ably be diverted to channels of research and needed publications. Additional revenue will enable the enlargement of this Department and the publication of reports and clinical papers, which must be placed elsewhere with difficulty. Readers and members will please send suggestions and names of prospective advertisers to the *Secretary*, Dr. I. G. Woodcock, 133 East 58th Street, New York City.

CLINICAL MEDICINE AND SURGERY is joining in dentistry's crusade to free itself from commercial domination. We invite your cooperation. By reaching wider circles of dentists and physicians, by setting an example in creating "good will" in a professional way in a medicodental publication, we increase our sphere of influence and contribute thereby our share to the growth of *independent dental journalism*.

A. J. A.

## The Objective of Diagnosis of Diseases of the Mouth

By Louis V. Hayes, A.B., D.D.S., New York City

Associate Professor of Oral Surgery, New York University College of Dentistry; Associate Visiting Dental Surgeon, Bellevue Hospital; Associate Editor, Archives of Physical Therapy

THE major objective of oral diagnosis is to prepare the student and practitioner for the scientific handling of patients, with a full comprehension of the responsibilities placed on the specialist engaged in the treatment and prevention of diseases of the mouth, face and jaws, from the standpoint of their relationship to the body as a whole. It must be recognized that no treatment of mouth disease, or any organ of the oral cavity and adjacent structures, may be instituted without considering the effects of such treatment on the rest of the body or other organs, in some form. All local mouth treatment must be viewed in the light of its effects on remote bodily organs, irrespective of whether it terminates in a favorable or undesirable manner.

The oral clinician must understand, not only the nature of the treatment employed in a given condition, but it is equally essential for him to be able to recognize and differentiate the various normal and abnormal mouth conditions, in order to prescribe the correct treatment.

The threefold purpose of the study of diagnosis in the broad field of clinical dentistry may thus be stated to be: (1) To acquire clinical understanding, theoretical and practical, in order to be able to recognize some of the more common mouth diseases encountered

in daily dental practice; (2) to acquire knowledge of the fundamental principles underlying the *science* and *art of diagnosis*. (This science is known as Diagnostics); (3) to become proficient in the application of this knowledge in the clinical study and analysis of oral cases, as a means to future research and scientific investigation of diseases of the mouth and its organs.

The following three cases illustrate the opportunities the dental clinician has in fulfilling the above objectives in the care of dental patients.

### Case 1: *Pemphigus vulgaris*:

**History:** This patient, of Jewish extraction, age forty-three, taxi chauffeur by occupation, gave a history of losing weight, which he thought was due to long, irregular hours of work. About three months before he presented himself at our Clinic, the patient had noticed difficulty and pain in mastication and swallowing, and bleeding from the nose.

**Clinical examination:** Upon examination, dull, irregular, grayish patches were disclosed on the soft palate, cheeks, lips and gums. The membrane covering the patches was thin and, upon removal, left raw, bleeding surfaces. A bleb or bulla is the initial lesion, which then breaks down.

**Clinical diagnosis:** This patient was also



Left to right: Case 1, pemphigus vulgaris; Case 2, hard fibromas; Case 3, lymphangi endothelioma.

examined for characteristic lesions on the body, which were suspected. Several painless ones were observed. After correlating these findings, a diagnosis of pemphigus vulgaris was made, which was later confirmed.

**Case 2: Hard Fibromas on Tuberosities.**

**History:** The throat of this mentally defective patient, age 20, was very much constricted by two large growths arising from the lingual surfaces of the tuberosities. As far as the patient knew, the duration of this unusual condition was approximately seven months.

**Clinical examination:** These growths were just a trifle lighter in color than normal mucous membrane; the size of a walnut; painless, with sessile base, and semi-hard to the touch. The patient's mouth was in a deplorable, unhygienic condition, with infected roots and broken-down teeth.

**Symptoms:** Although the growths were painless, the patient complained of a dull, aching pain in the ears.

**Clinical diagnosis:** Fibromas.

**Pathologic diagnosis:** Hard fibromas.

**Treatment:** Removal of growths with the endotherm knife. Pain in the ears subsided immediately after treatment.

**Case 3: Lymphangi endothelioma:**

**History:** This patient, age 40, presented himself with a growth that had been lanced as a dental abscess by a dental surgeon. This treatment was resorted to, regardless of the fact that a history of having had it removed ten years previously was given by the patient. The patient was wearing an artificial plate. In spite of that, the mass was painless until two weeks before the patient came to the Clinic.

**Clinical examination:** Upon palpation, what appeared to be cystic fluid exuded from the growth.

**Clinical diagnosis:** Having seen several such tumors, a tentative diagnosis was made of lymphangi endothelioma, which was confirmed by a biopsy.

**Treatment:** This patient was referred to the radiologic department for radium treatment. These tumors recur, but do not metastasize. 576 Fifth Avenue.

## NOTES AND ABSTRACTS

### Dental Economics\*

STATISTICS collected from all over the country show that the normal week of the typical dentist consists of 30 hours at the chair, 6 hours in the laboratory, and 10 hours at other duties in the office, making a total of 46 hours. The dentists in general practice, in cities of 1,000,000 or more population, work the longest hours and spend the most time at the chair.

The average dentist treated approximately eight patients per day in 1929 and came in

contact with about 430 different patients during the year. The average dentist works 47.3 weeks per year. Making allowance for chair hours that are not income hours, the average number of income hours worked would be about 1,000 per year. The author thinks that, by organization, speed and efficiency, it is possible to increase the income hours, and by lowering fees to maintain the net income. Such economic action becomes of exceeding importance in times of economic distress, when costs must be made to meet the reduced fees collectable.

There is no possibility that all dentists in a given community will charge the same fees,

\*Dent. Cosmos, Aug., 1932.



for there is a vast difference in the demand for the services of different members of the profession, as there is a vast difference in the ability of different individuals to pay.

F. W. HINDS, D.D.S.

Dallas, Texas.

### A Dentist's Revenge

(See CLIN. MED. & SURG., July, 1933, p. 361)

I COULD never get more than fifty cents' worth of satisfaction out of revenge. I always had to stoop to get it. The dentist paid too high a price for this very questionable pleasure.

The manufacturer showed poor breeding in his attitude. I take it that he is a man who "bulls" his way through business deals.

The dentist showed lack of good business sense. A few well-chosen words would have put him in control of the situation, without loss of any dignity.

I believe both men are much in the same class. Both need to acquire a bit more culture.

F. W. SCHROEDER, M.D.

Strasburg, Ill.

### Dentistry and Health Insurance\*

WE HAVE been told that 20 percent of the public receive adequate dental services. When the State undertakes to serve the other 80 percent, the dental profession will be vitally interested, because the State will naturally look to the dental profession to supply the service. When the change takes place there will be a wide field opened up for dental health service. Whether State health insurance comes or not, it won't make any less dentistry to be done for the well-to-do, but on the other hand, if it does come, there will be far more to be done for the poor.

The dentist must be prepared to meet all others interested in giving a health service. Dentistry will find itself in a much wider field of endeavor.

A. E. WEBSTER, D.D.S., M.D.

### BOOKS

#### Palmer: Dental Journalism

THE STATUS OF DENTAL JOURNALISM. By Bissell B. Palmer, D.D.S., F.A.C.D., Chairman, Commission on Journalism. Published by the American College of Dentists. 1932. To be obtained from Dr. Albert T. Midg-

\*Dental Outlook, March, 1933.

ley, Secretary, 1108 Union Trust Building, Providence, R. I. Paper, \$4.00; Cloth, \$5.00.

Dentists and physicians interested in the growth of dentistry in America must be familiar with this work to have an intelligent grasp of the subject. It contains a record and detailed discussion of current periodicals and a bibliography from 1839. This 238-page volume is so informative that the reader is referred to our editorial comment.

### NEWS NOTES

#### Dentistry at Chicago World's Fair

AT THE Century of Progress Exposition, in Chicago, the officially designated "Dental Week" of the Exposition will be held on August 7th to 12th, 1933. The Centennial Dental Congress will meet at the Stevens Hotel in Chicago, with an anticipated attendance of 15,000 members of the profession from all parts of the world. The seventy-fifth annual meeting of the American Dental Association will be held in conjunction with, and as a part of, the Congress. It is, therefore, anticipated that this will be the largest meeting of dentists in the history of the world.

The dental exhibit at the Exposition will be unique in many respects. It hopes to have the highest educational value, so that people generally will become more interested in the problem of healthy mouths. The exhibit has been so developed as to present a limited number of rather striking features, which every passerby must see, rather than to show a multitude of small things, which would attract less attention. The main features of the exhibit, opened on June 1, are: The Talking Tooth, The Pyorrhea Tooth, Progress of Dental Service, Tooth Brushing Exhibit, Mastication Exhibit, Professional Dental Education, Movie Theatre, and Dental Puppet Show.

Millions of Fair visitors, noting this exhibit will appreciate dentistry as an oral health service. Every stomatologist is urged to prevail upon those of his patients who will visit the Exposition to pay particular attention to the story of dental progress as revealed in the Hall of Science.

#### Jenkins Medal to Dr. Winter

THE Newell Sill Jenkins Medal, for 1933, was recently conferred by the Connecticut State Dental Society upon George B. Winter, D.D.S., of St. Louis, in token of his outstanding contribution to the welfare of humanity, in his research and writings upon exodontia.

# A LIVING FOR THE DOCTOR

## Capital and Capitalism

A GREAT deal of fuzzy thinking, and consequent loose conversation is being indulged in of late, not only by people who are obviously ill informed, but also by many who ought to know better, but obviously do not.

Many are wondering, by word of mouth and in print, whether this country faces a revolution. That question is easily answered. It does not—*because revolution is already an accomplished fact*, even though we have had no street fighting (except in limited areas here and there) and no shockingly excessive use of telephone poles and hickory limbs for the suspension of unpopular persons.

Our government and our economic structure will never again be as they were a decade ago. The question now is, how far will we permit the revolutionary activities to go? We may be quite sure that, if we sit back and do nothing about it, we will presently find ourselves carried into situations which, at best, may be highly unsatisfactory; and, at worst, wholly disastrous. If our actions are to bear any worthy fruit, we must, however, gain some definite knowledge and do some sincere thinking about the conditions in which we find ourselves.

One of the words which comes in for vast conversational abuse and too little sane consideration is *capitalism*. The agitators and propagandists who, for pay (most of it coming from quarters which will astonish the public when they are made known) or just for neurotic excitement, are vigorously and rather openly striving to overthrow our system entirely, frankly lay our present sorry case at the door of capitalism, and recommend that we turn for relief to some form of socialism (which we seem already to have done, in a considerable measure), or even to outright communism (from which, may Heaven defend us all!).

Capitalism and Bolshevism are exactly op-

posite terms, but not many have any clear idea what either of those words mean. There is a widespread impression that capitalism means a system in which a small group of men, of predatory and wholly selfish instincts, have control of all the means of livelihood and subsistence in the country, and exploit these for their personal profit.

No intelligent person can deny that such a condition now exists in this country (and in most other countries, to a greater or less extent). The question is, should these distressing circumstances be laid at the door of capitalism, as a system of national procedure, or located (where they seem to belong) in the perverse and antisocial activities of a small number of human beings, who are using large powers for nefarious purposes, to the discomfort, embarrassment or even ruin of the rest of us? As a matter of fact, these selfishly destructive elements in human nature appear to be in full bloom in Russia, which is as far away from capitalism as is possible.

Capitalism is the practical application of the theory of capital; but, what is capital? How many thousands or millions of dollars must a man have in order to be a capitalist?

The dictionary defines capital, in its fiduciary sense, as "that part of wealth which is saved and is available for or employed in future production." That means, if it means anything, that any man who has saved any part of his income, and is using it in any way to augment that income, is a capitalist. Everyone who owns a bond or share of any kind; every young man who is saving for an education or paying for life insurance; why, even the lad who is depositing his dimes, at interest, in the Postal Savings Bank, is a capitalist.

The Capitalistic system, in its simplest statement, is based upon the doctrine of the inviolability of personal property, earned or

produced by personal effort of one kind or another; while Bolshevism aims at the destruction of the institution of personal property in any form. The right of the man who owns a factory, a skyscraper or a railroad is no greater—and no less—than that of the poor fellow who owns a peanut roaster, a quarter-acre of land with a hut on it or a kit of carpenter's tools.

It may well be that Capitalism is not the best system under which a nation can live, but it certainly accords well with the genius of the American people, as now expressed in our enthusiasm for individual effort and our joy in the rewards it brings.

A serious and purposeful effort is being made by the communists to overthrow all capitalistic governments, and there are those, here at home, who would sell our country and our people for the personal profit they would make from international financial juggling. Recognition of Russia by our government is

a part of this scheme.

It is well to keep our eyes, alert and wide open, upon the people who are dickering for advantages, not for us, but for themselves, in the promulgation of foreign activities which can be financed only by the savings of the little capitalists in America, and to use every effort in our power to prevent them from accomplishing their plans of disruption. If we keep in touch with our Senators and Representatives and make them know, in no milk-and-water language, what we want, *it can be done*. Not otherwise!

The utopia of Edward Bellamy's "Looking Backward" may be on the make, but it will not come through communism and confiscation—unless as a reaction to their rigors—but through the development of individual initiative into that altruism which includes a nation in the fruits of our efforts.

"Eternal vigilance is the price of liberty."

G. B. L.

## NOTES AND ABSTRACTS

### Insurance Companies and the Medical Profession\*

IN order that an insurance company may be protected in a death claim, it is necessary for the company to have proof of the death of the policy holder. Naturally, the one who can best give the proof of death, with the cause, is the medical attendant. As this proof of death is necessary for the protection of the insurance company, one would think that the company would be willing to pay the medical attendant for his time in furnishing the proof, but such is not the case. Some medical director (probably the first one) conceived the idea that it would be a good business move to get the medical attendants to furnish the proof of death without charge to the company, and this has been the custom ever since. While there is no good reason why a physician should give companies, organized for profit, information gratuitously, for the protection of the companies, it would not be so bad if the companies asked for nothing but proof of death.

The answers to six questions will give all

the information necessary to prove the death of the insured:

- 1.—Name of deceased in full.
- 2.—Age at death, and residence.
- 3.—Place of death.
- 4.—Date of death.
- 5.—Cause of death.
- 6.—How long have you known the deceased?

But the medical directors and actuaries want much more information than is contained in the proof of death. As long as the doctor is furnishing the proof of death gratuitously to the insurance company, why not insert some more questions and get some more information for nothing? So questions like the following were slyly inserted in the proof of death blank.

Were you the deceased's medical attendant before his last illness? If so, when and for what disease?

Was the last illness complicated or induced by any previous illness?

Was his death caused, directly or indirectly, by intemperance or any pernicious habit?

The above are only a few of the irrelevant questions that are not proof of death. A long list of similar questions could be presented if

\*Adapted from *Peoria Medical News*, May, 1933.



space permitted. All irrelevant questions are an imposition on the time of the busy doctor, and the officers of insurance companies, including the medical director, should be ashamed of themselves for imposing upon the medical profession.

Of course, the members of the medical profession are partly to blame themselves. If they would decline to answer any questions except those constituting a proof of death, the insurance companies would shorten their blank forms. I have a rubber stamp bearing the words "not proof of death" and when I come to an irrelevant question in a proof of death blank, I use the stamp. It is simple and convenient.

The insurance companies have found out that members of the medical profession are keeping much better records of their treatment of patients than they did in former times. If an applicant for insurance happens to mention that he was under the care of a physician at a former time, the medical director immediately wants to know about the illness, so he writes to the physician for the information. Usually there is no offer of payment for the time spent in looking up the information, but some companies offer to pay one dollar. Here again, the medical director can not bear to limit the questions to the illness involved, particularly as his company is paying one dollar for it.

One company in Indiana is a most atrocious offender in this respect. If an applicant applies for insurance to this company and mentions a previous illness, the medical director writes to the medical attendant and requests that the following blank be filled:

"We will appreciate an answer to the questions below. A check of \$1.00 will be mailed you promptly upon receipt of this form: Please state date and diagnosis of case..... What was duration and your prognosis?..... Remarks: ..... Would you consider Applicant a satisfactory risk at present?..... Did you ever attend Applicant on any other date?..... If so, when and for what?..... To your knowledge, did the Applicant ever consult any other physician?..... If so, who and for what?....."

It will be noted that he offers to pay one dollar for the information concerning the illness. Then he becomes afraid that he will not get enough for his money, so he asks for an opinion as to the insurability of the applicant. It is presumed that he pays his medical examiner five dollars for such an opinion, but this is too good an opportunity to get a good deal for very little. The blank above is only an example of many similar ones from other insurance companies.

The remedy for this imposition is for the medical profession to decline to give to the

insurance companies the information that they are not entitled to receive. If each doctor drew a line through those questions that are not confined to the inquiry, the blanks would soon be shortened.

I have persistently done this for years, and have not had one blank returned because all of the questions are not answered. It is evident that the medical directors know very well that they are not entitled to the information asked for in the irrelevant questions. The medical directors should be ashamed of the way they have imposed upon and robbed the physicians of their time.

CLIFFORD U. COLLINS, M.D.

Peoria, Ill.

## Medical Programs

ONE trouble with county medical society programs, which is not wholly unknown in the big, recherche gatherings, is the sub-literate, of whom we still have a few in our Glorious Profession—the man who thinks with his mouth and has no terminal facilities, but is often permitted to mess up a perfectly good program with pointless reminiscences of the inconsequential details of "A case I saw back in 1886."

When such a bore is allowed to talk for ten or fifteen minutes (and, unfortunately, most of the chairmen appear to have more sympathy with the perpetrator than with his victims), it seems as if he had been drooling for an hour, and the whole affair goes splash.

We're all eager to listen to any man who has something to say and who will say it and sit down, even though we may not agree with him. But heaven save us from the gabblers whose thought-bank closed its doors twenty years ago, leaving them destitute, but who are charmed beyond measure with the melodious (?) music of the own voices—"G Rutch, M.D.," in *Med. Pocket Quarterly*, June, 1933.

## Cuban Physicians Revolt\*

NEWSPAPERS recently announced that the physicians of Cuba employed by the mutual aid societies had revolted against the terms of their employment and that at the request of the president of Cuba they had agreed to postpone their strike for seventy-two hours. The president is studying the dispute, which is precipitated by a refusal of the societies to drop from their membership lists all persons financially able to pay regular fees for medical attendance.

\*Reprinted editorial from *J.A.M.A.*, Aug. 27, 1932.

The situation thus precipitated in Cuba was called to the attention of the House of Delegates of the American Medical Association in 1927 by Dr. J. M. Penichet, professor of ophthalmology in the University of Havana. The conditions of medical practice in Cuba are unusual. The population is slightly over 3,000,000 and there about 3,000 physicians practicing in the island. This would seem to indicate approximately 1,000 available patients for each physician, whereas actually such is not the case. Some two-thirds of the population are affiliated with the Spanish mutual aid societies. About fifty years ago the Spaniards established this form of practice, primarily to take care of laborers. For the sum of \$2 a month, members of the society are entitled to medical care in case of illness. In addition, the societies have developed clubhouses, schools, libraries, gymnasiums, ballrooms and similar amusements, and in some instances they own banks. Physicians are employed on small salaries to provide medical care. There are approximately twenty of these health societies. One of them has at least 60,000 members and another some 20,000 members. In addition to hospitals they have exceedingly ornate and handsome clubhouses, which constitute a rallying place for their membership. Shortly the plantation owners and other wealthy patrons of these organizations decided to avail themselves of the same privileges as were accorded to the laborers. As a result the private practice of medicine began to fall into desuetude and therewith the medical profession itself began to retrograde. In his address to the American Medical Association in 1927, Professor Penichet pointed out that the mutual aid societies were able to function largely through exploitation of the medical profession. The physicians formed a federation to oppose these powerful trusts and to free the medical profession. Previously to 1927 the profession had revolted twice, and there has been constant conflict since that time.

In a trip recently made to Cuba by Dr. George H. Kress, editor of *California and Western Medicine*, he verified the status of the situation as related by Professor Penichet. In an account in his publication he pointed out its significance in relationship to conditions in this country. The medical profession of our own country certainly cannot anticipate better treatment or a more favorable consideration in relationship to some of the schemes now being exploited here. Certainly the Cuban medical profession has been but poorly rewarded for some fifty years of trial of such practice in that country. Inevitably, the physician, who in times of stress disposes of his medical birthright as a professional man, finds himself the drudge of the group

that has purchased his scientific freedom. The physicians in Cuba who are the employees of the mutual aid societies work day and night for a pittance and are so constantly driven by the excessive demands on their services that they are unable to give to any patient the individual medical attention necessary to intelligent and satisfactory medical care. The rich patrons under these contracts no doubt demand and receive better service than is rendered to the membership generally. The psychologic and biologic laws which communistic propagandists would invalidate in reforming medical care go right on working and eventually invalidate the experiments.

### The Private Practitioner and Preventive Medicine

**A**N EDITORIAL in *J.A.M.A.*, Sept. 10, 1932, discusses the relation of the private practitioner to preventive medicine, especially in connection with health insurance. Sir George Newman, Chief Medical Officer of the British Ministry of Health, is quoted in regard to the practitioner's part in the British Insurance Act of 1911. He pointed out that 15,000 medical practitioners have voluntarily joined in a cooperative scheme of the profession, the friendly societies and the State, for the medical supervision of fifteen million people—more than one-third of the population. These practitioners represent three-sevenths of the number of physicians who are members of the British Medical Association.

Translated into American terms, this would mean 45,000 physicians in this country affiliated with such a scheme, if one should be established in the United States, and there would be forty million beneficiaries.

The editorial points out that, while other agencies are influencing public opinion as regards State Medicine and public health, there is still time for the medical profession to take its proper place in the determination of how the problems of medical practice shall be solved.

Any proposal relating to health depends on medical service. Without adequate provisions for delivering a high grade of medical service the profession suffers, but the public—that is, the patient—suffers still more.

Sir George Newman falls to point out the fundamental defects in existing health insurance systems; namely, combining the work of the practicing physician with that of the examiner or inspector, on whose judgment cash benefits are awarded. This conflict disturbs the relationship of faith and confidence between patient and physician, which students of medical practice have from the beginning regarded as fundamental. While the doctor is

expected to act as an inspector, he cannot function to fullest advantage either in treatment or in prevention of disease.

In the light of other opinions, Sir George Newman has not made out a very convincing case for health insurance as a public health measure, at least on the British plan. It seems, indeed, to have developed merely a cheap method of satisfying underprivileged workers with a less than adequate medical service.

### Saving Two Cents on Every Statement Mailed\*

THE Postal Laws permit that a form, known as the Business Reply Postcard, may be printed and used by anybody who takes out a permit at the local post office. The postal authorities have also ruled that when suitably closed by a sticker this double postcard may contain written statements of accounts due.

We have recently adopted this method of mailing statements in our clinic; it enables us to save 66 2/3 percent on statement postage.

The illustration explains how we have adapted the idea to our purpose. The return half of the postcard may suggest to the patient that an immediate answer of some sort is desired.

CLAYTON M. BOND.

Sheboygan (Wis.) Clinic.

### Office Management of the Diabetic

AS ASSERTED by Dr. J. R. Scott, of New York, in *New York St. J. M.*, June 1, 1932, any physician, wherever situated, can manage the average diabetic patient. When properly conducted, the patient or some one of his family does the routine work and the physician acts only in the capacity of a consultant, at intervals depending upon the severity of the case.

The diagnosis depends upon tests of the urine and blood for glucose. The urine analysis can be done in the office in 5 minutes; if the blood analysis cannot be done in the office it can be made in the nearest laboratory.

Once the diagnosis of diabetes is made, the education of the patient in the management of his own case is the first step in treatment.

\**Med. Economics*, Nov., 1932.

When the postcard statement is folded, the address of the patient is written on the back of the statement, leaving the back of the Business Reply Card blank. A small sticker is used to hold the two parts closed.

He must be taught that the criteria for success in treatment are:

- 1.—A sugar-free urine.
- 2.—A normal blood-sugar.
- 3.—A weight 10 percent below the average for age and height.

If these conditions are fulfilled the patient is being adequately treated.

Each patient (or some member of his family) should be taught to do three things:

- 1.—Test the urine for sugar.
- 2.—Calculate his diet.
- 3.—Give himself insulin.

This can be done anywhere, and the equipment required is simple: A simple urine-testing outfit, a 500 Gm. food scale, a table of food values, and an insulin syringe with insulin. With a very little patience, this training is not so formidable a task as it might appear to be. By actually performing a sugar test before a patient he can learn to do it in five minutes. All except the mildest cases are placed on weighed diets from the first. This often necessitates a struggle, but the effort expended will be repaid many times in the increased interest and cooperation of the patient.

A patient's routine should be about as follows:

1.—He tests his urine for sugar before breakfast and one hour after each meal, and records the results in a notebook kept for the purpose. The results of the test are recorded as blue, green, yellow or orange. This gives a roughly quantitative record of the amount of sugar in the urine, and is a reliable index of the amount of insulin required, as well as what time of day it is most needed.

2.—He weighs and calculates his diet until he has become familiar with the prescribed amounts of each article of diet. He is then allowed to dine at a restaurant where he has to estimate the quantity of food, after which he does a urine test to see how close he came to allowance. This can become a fascinating game.

3.—He gives himself insulin as prescribed by his physician. After following the effects of insulin on his tests, he is allowed to increase or decrease the insulin one or two units a dose, as indicated by his tests.

4.—He visits the office anywhere from twice a week to once a month, depending upon the severity of his case. All patients should be seen once a month and bring the notebook in which is recorded each day's diet, the results of the four daily urine tests, and the insulin dosage.

The patient's weight is the best guide to his caloric requirements and his four daily urine tests are the best guide to his insulin requirements. Joslin's "Manual of Diabetes" will give all the necessary information for calculation of diets and also the "color index" for insulin requirements.

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The best \$3 (renewal to "C. M. & S.") any physician ever spent.—A.G.D., M.D., Indiana.

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Look for THE LEISURE HOUR among the advertising pages at the back.

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### Solve Your Problems

YOU will fare better if you buckle down to solve your own problems, without hope of miracles, and ask nothing of Congress except an honest effort to do you no further injury.

—ROBT. QUILLEN, in *Fountain Inn Tribune*.

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If meddlesome outsiders would quit telling the doctors how to practice medicine, the public would be better served and the economic balance would not so often be out of true.—DR. EMMET KEATING.

### Personality Factors of Success

A GREAT deal of time and much sorrow can be saved if physicians will come to recognize that, if they are not successful in their work, they, themselves, are largely the cause of the trouble and will then diligently and honestly set out to discover what is wrong with them and to remedy it.

A help in this direction is offered by J. F. Dashiell, writing in the *Journal of Applied Psychology* for June, 1932.

With the collaboration of a number of medical educators, a list of twelve vital factors of success in medical practice was compiled, a careful study of which, together with a frank admission of weaknesses and a deliberate effort to strengthen the soft spots, should go far toward increasing success and satisfaction.

Here is the list, arranged in the order of importance of the various qualities:

- 1.—Keen observation.
  - 2.—Analytical mindedness.
  - 3.—Honesty.
  - 4.—Accuracy.
  - 5.—Tactfulness.
  - 6.—Open mindedness.
  - 7.—Industry.
  - 8.—Patience.
  - 9.—Good memory.
  - 10.—Good personal appearance.
  - 11.—Originality.
  - 12.—Leadership.
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### X-Ray Films and the Patient

IN times of business depression, the average patient does not wish to incur the expense of roentgenograms if it can be avoided. Old films properly selected are often of value in explaining to such a patient the probable cause of his symptoms and why roentgenologic studies should be made. Moreover, the intelligent layman of today is rightly curious about the details of his condition. He feels that, since he has paid for having the x-ray pictures made, he has a right to see them and to have them explained to him. Time spent in such explanation will not only please him but also do a great deal toward securing his more intelligent cooperation in the course of treatment recommended.—DR. E. G. BALLENGER, Atlanta, Ga., in *J.A.M.A.*, Sept. 24, 1932.

# THE SEMINAR

(NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.)

Discussions should reach this office not later than the 1st of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, North Chicago, Ill.)

## Problem No. 6 (Surgical)

Presented by Dr. W. A. Newman Dorland,  
Chicago

(See CLIN. MED. & SURG., June, 1933, p. 317)

**R**ECAPITULATION: A woman of 42 years; widowed and never pregnant; always in good health until the present trouble came on, has, within the past 18 months, developed a slowly increasing, non-painful, solid, non-pulsating, slightly movable mass in the center of her abdomen, extending nearly to the diaphragm. Vaginal palpitation and all other physical and laboratory examinations reveal no abnormality.

**Requirement:** What variety of tumor is probably present, and what is the indicated treatment?

### Discussion by Dr. E. D. Levisohn, Chicago

**T**HE differential diagnosis in this case rests between that of an ovarian cyst and an intramural fibroid of the uterus. The history of regular menstruation without pain, the high normal position of the cervix and the inability to lift the tumor with the examining finger, all point to a diagnosis of ovarian cyst.

One is more apt to obtain a history of irregular menstruation, with pain, occasional periods of hemorrhage, a tumor that can be lifted with the examining finger and a malposition of the os uteri, in a fibroid of the intramural type.

The time factor of eighteen months is very unreliable. A patient that I recently operated upon, revealing a huge intramural fibroid, realized, after operation, that for the past four or five years she had noticed some difficulty in bending; whereas, before operation, she had failed to notice even the enlargement of her abdomen.

Surgical removal of the tumor is the indicated treatment.

### Discussion by Dr. J. A. Dungan, Greeley, Colo.

**I** ASSUME that this is a cyst either of the omentum or, more likely, of the mesentery, and one with a very thick wall, which might

account for its apparent solidity, though there has not been the body-wasting one would look for in the latter.

It may have originated in the neighborhood of the iliac mesentery and made its way centrally, perhaps with a very long pedicle.

These tumors, while benign, expose the host to the danger of cancer of the part and should be extirpated, with drainage.

### Discussion by Dr. G. M. Blech, Chicago

**I**N the presence of a large abdominal tumor a discussion of therapy is superfluous, because there is only one proper way of handling such growths—surgery. The only exception, justifying resort to deep x-ray therapy, is in cases of fibromyoma of the uterus of women near or past the menopause.

The diagnosis can only be conjectured, because almost any type of tumor may be present—ovarian cyst, teratoma, fibromyoma, an old abdominal pregnancy or any one of many others. One might copy the enumerations from any standard textbook. Even the best surgeons frequently refuse to make anything but a tentative diagnosis until the tumor is exposed.

### Solution by Dr. Dorland

**T**HIS is a difficult case for diagnosis. Of course, the diagnosis of abdominal tumor is plain; the difficulty lies in determining the probable nature of the growth. The setting is clear for a fibroid tumor of the uterus—the age of the patient, the location of the growth in the median line of the body and the history of sterility, all would indicate such a tumor. The absence of pain and hemorrhage and the non-interference with the menstrual flow would indicate a subperitoneal variety of the tumor, with no pressure upon the vascular supply and the nerves.

There are some features, however, which would throw some doubt upon this diagnosis. The fact that the tumor is not nodulated, but is smooth and regular in outline, while not





Fig. 1

contraindicating a fibroid tumor of the uterus, would lead one to suspect the possibility of an ovarian or dermoid growth. The absence of hemorrhage would also favor the diagnosis of an extrauterine growth. These tumors, however, are generally located in the pelvis—in the cul-de-sac or to one or the

other side—and are usually more or less sensitive to the touch. The history of the duration of the growth is also somewhat misleading. The patient had noticed its presence for only a little over a year. A fibroid tumor of the uterus, of the size present in this case, would require a much longer time than this to develop, unless it was undergoing a malignant change, when the growth would be fairly rapid.

**Diagnosis:** Probably a subperitoneal fibroid tumor of the uterus. **Treatment:** Supravaginal hysterectomy.

**Note:** Operation showed an everted, almost completely solid, papillary cystadenoma of the ovary, attached by a broad pedicle directly to the fundus of the uterus, and springing from the left ovary. The right ovary was apparently normal.

#### Problem No. 8 (Surgical)

*Presented by Dr. F. D. LaRochelle,  
Springfield, Mass.*

A POLICE officer, age 35, came to the hospital with a large disfiguring mass on his forehead. He says that when he was a boy he fell on a piece of glass and cut his forehead. A number of years later, a small growth appeared in the scar and has grown, gradually, to the present size. His general health is excellent. There is no pain.

The mass is hard and fixed to the skin and underlying tissues. Clinically this is evidently a tumor of some sort (see Fig. 1). Aspiration was negative and x-ray examination showed erosion of the underlying bone, but the tumor does not spring from bone.

**Requirement:** What is the diagnosis and what course should be pursued?

### SURGICAL CONSCIENCE

*In this era of economic distress, surgeons must revise certain economic policies; they must endeavor to reduce overhead expense and to attain a more equitable adjustment of charges while maintaining scientific efficiency; they must reduce the number of those undeserving delinquents who are not entitled to charity, for they will thus save the necessity of overcharging the well-to-do.*

*Surgical conscience should lend a sympathetic ear to the great, self-respecting middle class, for now as never before do they dread the expense of illness more than the ordeal of surgery, and will even hazard health and life rather than incur a debt that cannot be paid.—Editorial in Surg. Gynec. & Obst., Feb., 1932.*

### SCIENCE AND SPIRIT

*Science is the ladder by which life may quickly ascend; but until science recognizes a spiritual force as the one essential force, of which all other forces are incidental phenomena, progress must be limited.—MARGARET CAMERON, in "The Seven Purposes."*

# CLINICAL NOTES and ABSTRACTS

## The Gonads and Diabetes (A Case Report)

FOR a good many years, most men treating diabetes must have been impressed by the fact that ovarian insufficiency, as indicated by the subjective complaints and menstrual disorders, has an unfavorable influence on the diabetes.

Lawrence and Rowe showed that the tolerance of the female body for galactose appears to be largely influenced by ovarian function. Stanley demonstrated that injections of testicular emulsions increase the diabetic's tolerance for carbohydrates and sometimes liberate him from the use of insulin.

The following case illustrates the advantage of paying attention to the ovarian as well as the pancreatic factors in diabetes:

Miss M. C., age 18, was referred to me September 14, 1932, by Dr. Carroll Eugene Cook, of Chicago. She complained of polyphagia, polydipsia, polyuria, weakness, loss of weight and amenorrhea. The complaints were first noted in April of 1932, but did not become troublesome until June, when she began to have a little fever and became conscious of her heart action. The amenorrhea was of four months' duration. She stated that her other complaints, at that time, were the same as when I saw her and, in addition, she was troubled by breathlessness and palpitation.

She entered a hospital weighing 89 pounds, remained in that hospital eleven days, and was discharged on a weighed diet, taking 45 units of insulin daily. She did not consistently weigh her diet or examine her urine after leaving the hospital.

When I saw her the urine contained 12 percent of sugar and large quantities of acetone and diacetic acid, and she had three abscesses on her right leg. She had not menstruated for four months.

Treatment in our hospital was the usual determination of the carbohydrate tolerance, desugarization and the adjustment of insulin dosage at a point where she could take a liberal diet. She was discharged, taking 30 units of insulin three times a day, on a diet containing protein 71; fats, 156; and carbohydrates, 122 grams daily. In addition she was given Progynon, one tablet three times a day, in the hope of reestablishing her menstrual periods and at the same time reducing her insulin requirements. After discharge she gained weight rather rapidly. Her menstrual periods were reestablished at regular intervals. Her insulin requirement decreased to 45 units per day.

It seems likely that experimental physiologists will shortly advance an explanation for the relation of the gonadal function to carbo-

hydrate metabolism. At any rate, it should be emphasized now, as it has been many times before, that the pancreatic theory of diabetes is, after all, only a theory, with quite as much evidence against its acceptance as there is in favor of it. Every diabetic should have a very thorough examination, not only from a general physical standpoint but also as regards the endocrine function. The pituitary and thyroid, as well as the gonads, have an important influence on carbohydrate metabolism.

JAMES H. HUTTON, M.D.

Chicago, Ill.

## Headaches Due to Specific Sensitization\*

AN analysis of the symptoms and associated pathologic changes in sixty-five patients in whom headaches could be induced by clinical trial (sensitization to food) revealed:

1.—In approximately 85 percent of the patients the headaches were characterized by prodromes, auro, unilateral or bilateral headache and a postmigrainous phase of exhaustion, sleepiness, polyuria or nasal symptoms.

2.—The term, migraine, implies a clinical, not a pathologic entity, and should be used as such, and the specific cause of the attack should be stated, when known.

3.—There is a wide variation of symptoms in the same patient, in different attacks.

4.—The familial history of the headache is approximately three times as frequent as is the history of any allergic disease.

5.—Headaches due to specific sensitization may be classified according to symptomatology as: (A) migraine; and (B) headaches without sensory, motor or vasomotor changes. The latter group includes: (1) headaches without other demonstrable pathosis; (2) attacks associated with allergic reactions in the nose and sinuses; that is, frontal and other headaches, occurring in patients with seasonal or perennial vasomotor rhinitis; and (3) the headache of general allergic reaction. Ac-

\*J.A.M.A., Sept. 3, 1932.

cording to recurrence they may be classified as the periodic and nonperiodic.

6.—The findings obtained by gastric analysis, basal metabolism, cytologic study and ophthalmoscopic examination have not been of diagnostic value. The weight and height average of these patients was within the normal limits.

7.—Passive transfer was accomplished, using the technic of Prausnitz and Kustner.

8.—From these studies, it appears that the symptoms, familial history, and protean manifestations of headaches due to specific sensitization are similar to those of hereditary migraine.

DRS. H. J. RINKEL AND R. M. BALLYEAT.  
Oklahoma City, Okla.

### Poisoning With Barbiturates

THERE are no specific chemical antidotes for barbiturates: therefore, the treatment is only symptomatic. If still possible, the unabsorbed part of the drug should be recovered from the stomach by gastric lavage. Stimulants should be administered immediately. Goodly amounts of strong, black coffee should be given, by mouth or by rectum, at intervals. With indications of circulatory and respiratory depression, the usual stimulants should be resorted to: caffeine, camphor, atropine, strychnine.

Recovery from a dangerous overdose of a barbiturate depends upon the effective support of heart and respiration until the system, by its metabolic processes, has oxidized part of the drug and eliminated the rest through the kidneys. The patient should be kept warm, preferably in hot packs, particularly about the abdomen and kidneys, in order to maintain good circulation. To improve elimination, injections of physiologic saline solutions should be given. In extreme cases, infusions of saline solution and venesection should be resorted to, to remove from the system as much of the undecomposed drug as possible.

Cases of ordinary overdoses do not require such heroic methods. Mild stimulation, maintenance of body temperature, and sleep, will get the patient over his difficulty. In cases of overdoses of unknown quantity, it is advisable to resort to energetic measures immediately.

The barbiturates are poisons of slow lethal action, though the initial hypnotic influence may be exerted very quickly. Rarely is there a fatal ending, even after a massive dose, in less than twenty-four hours after intake; most commonly it does not occur until the third or fourth day.

If a very small dose of barbiturate—a dose

at the lower end of the therapeutic range—produces an abnormal reaction, such as incoordinate speech and action, hallucinations and skin symptoms, (rash, edema, blistering), nothing need be done but discontinue the medication, for such a case is one of idiosyncrasy.—Suggested by Hoffmann-LaRoche, Inc.

### Fractures of the Metacarpals and the Phalanges\*

AN ANALYTICAL study of 1,323 fractures of the metacarpals and the phalanges has impressed us with the constancy of the deformities which follow such fractures. More progress will be made in their treatment when the same consideration is given to these small bones that is given to the long bones of the body. A knowledge of the muscular attachments of the metacarpals and phalanges is most important in managing fractures of these bones successfully.

*Fractures of the distal phalanx:* The terminal phalanx is attached only at its proximal end to the middle phalanx. Its distal portion is free and not subject to the action of either the intrinsic or extrinsic muscles. It is here that considerable crushing of fragments may occur, with but slight displacement. Fractures involving the proximal portion of the terminal phalanx are subject to the action of the flexor profundus tendon and the extensor communis tendon. A fracture here may develop a varying degree of dorsal displacement of the proximal fragment. Occasionally, the entire proximal fragment may be avulsed.

*Fractures of the middle phalanx* owe their displacements to the action of the flexor digitorum sublimis. This muscle ends in a tendon which separates into two portions, which insert, one on either side of the middle phalanx, at approximately the mid-portion. The deformity produced will depend on the location of the fracture site. If this site is distal to the insertion of the tendon, there occurs a downward position of the proximal fragment and upward displacement of the distal fragment. When the fracture site is proximal to the tendon insertion, there is produced downward displacement of the distal fragment with an upward position of the proximal fragment.

Failure to take into account these two types of displacement of fragments will result in a failure to correct the deformity. When a straight splint is used for the second type of deformity, there results most commonly a downward projecting spur, which interferes with flexion of the distal phalanx.

\*Surg., Gyn. & Obst., 55:758, Dec., 1932.

In the second type, adequate fixation can be had by bringing the distal fragment into line by the use of a curved splint, restoring the fragments to the natural arc, which was present before fracture took place.

**Fractures of the proximal phalanx:** The resulting deformity when fracture of the proximal phalanx occurs is fairly constant, regardless of the site of fracture. Downward displacement of the proximal fragment is brought about by the action of the interosseus muscle, while upward displacement of the distal fragment is due to the action of the lumbrical muscle. Here again, fixation on a straight splint will maintain the deformity and result in impaired function. When the distal fragment is brought into line with the proximal fragment by fixation on a curved splint, a minimum of deformity will result.

**Fractures of the metacarpals, exclusive of the thumb,** usually result in typical deformities, characterized by shortening of the length of the bone due to bowing of the fragments. There is a dorsal projection at the site of fracture and volar displacement of the metacarpal head. This configuration is the result of the action of the interosseus muscle, which is a flexor of the proximal phalanx. The distal fragment of the metacarpal, being attached through the metacarpophalangeal joint to the proximal phalanx, assumes a flexed position.

These points cover the principles concerned in overcoming the deformities from simple fractures. We have not considered compound fractures because the fundamental principles of managing them must often be sacrificed because of the concomitant injury to soft parts, with impending or present infection.

DRS. R. W. MCNEALY AND M. E. LICHTENSTEIN.  
Chicago.

### The Arsphenamines in General Practice\*

THE use of arsphenamine is not practicable for those working outside of large clinics, where unlimited equipment and assistance is available; yet the vast majority of these cases must be treated elsewhere.

Neosarsphenamine is overwhelmingly the preparation of common choice. It has a lower percentage of unfavorable reactions and can be more conveniently employed.

It is not my intention even to suggest that neosarsphenamine is preferable to arsphenamine, nor to draw any comparisons as to values, but I do know that a large part of the treatment of syphilis must necessarily be done by physicians who are not doing this work on the large scale that would enable

them to command the facilities necessary for the use of arsphenamine. In other words, that the use of this product is not practicable except in the hands of experts with every facility at their command, while the use of arsphenamine requires only a knowledge of syphilis, a knowledge of the drug and the technical skill that would be necessary for any intravenous medication.

OSCAR W. BETHEA, M.D.

New Orleans, La.

### Preparation of Patients for Gall-Bladder Surgery\*

THERE are many cases, without a doubt, of "liver deaths," following gall-bladder and gall-duct surgery, that should never have been operated upon. As a proper workup and preparation of these cases are essential, I wish to stress the point of administering dextrose solutions preoperatively, continuously; and, in severe cases, even while operating, to keep a continuous flow, intravenously, of dextrose solution, 5 percent. These patients should be treated and prepared preoperatively by a competent internist and a skilled chemist, who is experienced in the chemical and microscopic examination of the bile, gastric and duodenal contents, and the chemical examination of the blood.

D. P. MACGUIRE, M.D.

New York City.

### Metaphen in Chronic Peptic Ulcer

#### (Case Reports)

I WISH to report two interesting cases in which treatment with Metaphen, given by mouth, produced excellent results.

Mr. S. P., age 43, has been under Sippy management for years; however, there was seasonal exacerbation of clinical symptoms of gnawing pain, nausea, salt taste in the mouth, insomnia and loss of weight.

He came to consult me on June 21, 1932, with the following complaints: Pain in the epigastrium 3 hours after meals; nausea; weakness; and extreme nervousness.

His past history was negative, with the exception of previous complaints of the above symptoms, off and on, since 1920.

The physical examination was negative, with the exception of epigastric tenderness. His stools, urine and nervous system were negative. A roentgenogram, taken in 1928, revealed a "niche" in the duodenum.

Since June 21, 1932, up to May 24, 1933, I had given him alkali medication, with re-

\*Internat. Med. Digest, Feb., 1933.

\*Internat. J. M. & S., May, 1932.

stricted diets. In the intervals, two to three weeks of rest in bed, with Sippy regime, was instituted; however, the patient was never symptom-free.

On May 24, 1933, I prescribed for him 3.0 cc. of Metaphen 1:500, with an equal quantity of glycerin, to be taken, in three ounces of a cream and milk mixture, 15 minutes before the 8:00 A. M., 12 (noon) and 6:00 P. M. feedings of milk-toast and cream. Before retiring (9:00 P. M.), 2.0 cc. of the Metaphen mixture was given. A dose of  $\frac{1}{2}$  grain (16 mgm.) of phenobarbital was given twice daily, to control pain. The patient was given soft diet on the fourth day.

Diathermy was employed every second day, with the positive electrode, measuring 3 x 6 inches, over the epigastrium, the top touching the substernal angle, and the negative or indifferent, 12 x 12 inches, over the sacrolumbar region. The dose was 1,000 to 1,500 milliamperes for thirty minutes, according to the adiposity and sensitiveness of the individual patient.

On May 30 the patient had a good night's rest. He was here June 3, and feels perfectly well. At present he is on no prescribed medication, aside from diet; has gained a pound in weight and is looking for work.

The second case concerns my own brother, who has had gastric ulcers since 1926. The treatment described has rendered him symptom-free since May 15, 1933.

Metaphen 1:500 has so far given gratifying results in peptic ulcer. The end result will, I hope, be equally satisfactory.

F. F. SCHWARTZ, M.D.

Fairport Harbor, Ohio.

### Repair of Nasal Deformity\*

THE patient, a girl of 16 years, was operated upon for septal abscess and purulent infection of the frontal and ethmoidal sinuses, in the first part of February, 1931. After operation the infection cleared up, leaving the patient with a sunken nose and depression of the forehead.

The history and examination were entirely negative, except for the nose, which showed loss of the entire septum; some destruction of the nasal bony bridge, with widening of the processes; loss of the outer table of the frontal sinus and frontal ridge in the glabella region.

*Advice:* (1) Repair of forehead by dermal graft; (2) correction of the saddle deformity with rib cartilage; (3) narrowing of the nasal bony processes.

*Operations:* On November 4, 1932, the rib cartilage was removed from the chest and stored subcutaneously in the upper part of the chest incision. A proper-sized dermal graft was taken from the same chest incision and, after undermining the depressed area of the forehead, the dermal graft was inserted and the incision inclosed. The patient was discharged from hospital after four days, with all incisions healed by first intention.

On January 11, 1933, the second stage of the operation was performed. At this time the nasal processes were refractured and pushed in, to narrow the nose. The previously-stored rib cartilage was removed from the chest and inserted into the nose, after the skin had been undermined and loosened. The patient was discharged after four days. Result thus far, excellent.

A postoperative inspection, Jan. 23, 1933, shows the condition to be very satisfactory.

CLARENCE STRAATSMA, M.D.

New York City.

Think of and watch for poliomyelitis (infantile paralysis) and tetanus during the summer months. These diseases are most common from July to October.

### Prophylaxis of the Anemia of Premature Infants\*

A STUDY of the use of various agents in attempting to prevent the development of the so-called physiologic anemia of premature infants leads to these conclusions:

In the prophylaxis of premature anemia, iron therapy alone is of doubtful value. Further, neither the use of desiccated hog's stomach (ventriculin) nor of liver fraction alone proved of value in the prevention of the anemia.

The most marked results were obtained in the group of premature infants, of from six to seven months' gestation, in which the development of the anemia was most severe. The exact mechanism of the development of this anemia still remains unexplained.

The data obtained indicate that a combination of liver fraction and ferrous ammonium citrate, started within the first fourteen days after birth with initial doses of from 1 to 2 Gm. twice daily, and increased up to 4 Gm. twice daily, was the most efficient of the prophylactic agents investigated. There was a definite response to this prophylactic agent.

DRS. A. F. ART AND H. R. NAGEL

Chicago, Ill.

\*Presented before the Society of Plastic and Reconstructive Surgery, New York, Jan. 30, 1933.

\*J.A.M.A., June 25, 1932.



### Viosterol in Hay Fever and Allergy\*

THERE has been a good deal of discussion regarding the value of viosterol in the treatment of hay fever and other allergic disorders.

In the winter of 1930 we began some studies on three cases of chronic asthma and two of severe urticaria, using viosterol of high potency, which we designated 8,000 X and 10,000 X (80 and 100 times, respectively, the potency of ordinary commercial viosterol 250 D), given intravenously in doses of 0.5 cc. (the equivalent of 40 and 50 cc. of commercial viosterol, according to the strength used). All were given a diet containing a definite amount of calcium.

In all of these patients the blood calcium was considerably increased by the treatment; but none of them showed any marked amelioration of the symptoms.

In July, 1932, we began observations on six ragweed-sensitive hay fever patients, four of whom also had autumnal asthma, giving them from 0.5 to 2.0 cc. of viosterol 10,000 X (equivalent to from 50 to 200 cc. of viosterol 250 D) by mouth daily, in one or more doses, through August and September. The doses, in every case, were adjusted to be just short of the toxic level for each individual patient.

One of these patients (not an asthmatic) reported practically 100 percent relief of symptoms; while the others claimed from 75 to 90 percent relief. In all of them the blood calcium was markedly increased, but the clinical improvement by no means always paralleled the chemical change.

These studies were made largely as a matter of research, and it is realized that the doses used were probably excessive for therapeutic purposes. However, no toxic symptoms were produced which were not promptly relieved by diminishing the dose, and no lasting ill effects have been noted. It appears, therefore, that ultraconservatism in the administration of large doses of viosterol has little justification.

DRS. B. Z. RAPPAFORT AND C. I. REED.  
Chicago, Ill.

### Spina Bifida (Occult) in Twins

RECENTLY confined a primipara of 21 years with twin boys. Both she and her husband were normal and in excellent physical condition. The babies weighed six and eight pounds, respectively, and were bright, active and normal in every respect, except that they both had a defect of the bony structures of the lumbo-sacral region, measuring about 2 x 1 inches and covered with thin, deep-red skin. There was no tumor nor protusion in either case.

\*J.A.M.A., July 8, 1933, p. 105.

I applied dressings, with a soft, antiseptic salve, and told the mother to watch the children carefully and protect the affected parts from undue pressure.

Twice before, in my forty-five years of practice, I have seen single cases of spina bifida; but never before in twins.

J. R. SMITH, M.D.

Warsaw, Mo.

This seems to be a decidedly unusual case and worthy of being reported.

The prognosis, in cases of spina bifida, depends largely upon the size of the tumor present and the character of the structures it contains, being more favorable when the sac holds nothing but spinal membranes and fluid, so these babies appear to have a good chance.

In occult spina bifida, the defect is often filled in with a pad of fat or a heavy growth of hair, so that it is not noted for several years.

It would seem possible that these small defects, with no protusion, may heal spontaneously, if protected from pressure. This is sometimes accomplished by using a smooth, perforated metal plate, held in place by adhesive plaster. In any case, even if an operation is to be performed to close the bony defect, it is better to postpone it for two years or more, if possible. If a tumor should develop, containing spinal fluid, it may be aspirated, inserting a long needle through normal skin at some distance from the lesion.—ED.

### Surface Vaccination or Scratch Method\*

FROM the scope of my experience of the past four years with the surface or scratch method of vaccination, using stock vaccines, I would say that it has proved of great value in cases of colds and acute neuritis with fever. I would suggest that cases of acute appendicitis should receive the benefit of this treatment for a period of six to twelve hours and, if in that time no benefit is derived, surgery should be resorted to. I have 5 cases on record, in 4 of which the symptoms were unquestionably removed in 24 hours.

The technic is as follows: Clean the flexor surface of the forearm with alcohol and dry with a sterile towel; with a hypodermic syringe, armed with a needle, place 2 drops of the well-shaken vaccine on the skin; make several parallel scratches with the needle, slightly drawing blood, and spread the vaccine over the scratched area, allowing it to dry after removing any clots present. No bandaging or dressing is required. There is

\*M. J. & Record, Jan. 4, 1933.

no general reaction, but, locally, a pale wheal will persist for several minutes to an hour.

Several cases of acute inflammatory rheumatism have been cured, whereas other cases were not benefited at all.

This treatment can be applied as preoperative prophylaxis, as its application or use is harmless and causes neither pain nor discomfort to the patient.

H. HERBERT, M.D.

Los Angeles, Calif.

### Pre-Medication with Nembutal\*

**N**EMBUTAL (pentobarbital sodium) is a valuable drug and a great advance toward the comfort of the patient. It does not cause any difficulties to the surgeon during operation. There is no shock and little fall in blood pressure.

My series of 71 unselected adult surgical cases has been divided into the following six groups: (1) Nembutal (intravenous) plus ether from Clover's inhaler, 27 cases; (2) Nembutal (intravenous) plus nitrous oxide plus oxygen plus trace of chloroform, 19 cases; (3) Nembutal (intravenous) plus chloroform or chloroform-ether alone, 5 cases; (4) Nembutal (oral) plus ether from Clover's inhaler, 14 cases; (5) Nembutal (intravenous) plus open ether or Junker ether, 2 cases; (6) Nembutal (oral) plus spinal anesthesia with spinocaine, or procaine, 4 cases. The amounts of Nembutal used varied from 3 to 7.5 grains (0.2 to 0.5 Gm.); the average was 5.28 grains (0.33 Gm.).

In Group 1, the amounts of ether used varied from one to 12 ounces (average 5.8); in Group 4 the average amount used was 6.4 ounces. In Group 6 each patient was given 4.5 grains (0.3 Gm.) of Nembutal previous to spinal anesthesia.

The various operations are recorded as cervical glands (6), thyroidectomy (8), abdominal (2), orthopedic (5), varicocele (1), perineal (11), nephrectomy (1), amputation of breast (2), vaginal (5), hysterectomy (3), ovarian cyst (1), plastic (2), antrum (1), excision of jaw (1), cholecystectomy (1), Gilliam (1), myomectomy (1), and nephropexy (1).

The after-effects may be summarized as follows: Out of 71 patients, 26 vomited (severe in three); 8 patients developed a cough (two had fever); 7 patients had slight headache; 15 patients were restless (11 required morphine to quiet them); and one patient (excision of jaw) died.

In two cases the Nembutal effect was unsatisfactory, one because of insufficient dos-

age. All of the other patients had complete amnesia for the entire day of operation.

When using Nembutal, patients are prepared in the usual way. Atropine (gr. 1/100) is administered routinely. The intravenous method of giving Nembutal is the best when a general anesthetic is to be used. The oral route is preferable if it is to be followed by spinal anesthesia.

Chloroform may be safely administered with Nembutal, but I have not used it for induction. Also I have not used Nembutal in children.

The restlessness that follows the use of Nembutal in some cases can always be controlled with morphine. I give it routinely on the first sign of excitement.

Nembutal should not be given to mental cases.† One mental patient in my series was extremely violent before operation, until controlled by ether anesthesia. Serious renal disease is also a contraindication to the use of Nembutal.

R. W. SHAW, M.D.

Dublin, Ireland.

### Physician's Duty to the Dying\*

**E**VERY physician should know the signs of impending death. When dying actually begins, restorative measures become worse than useless. No nutriment nor medicine should be given, nor artificial heat applied to cold extremities. A little water mixed with sour wine may be given as long as it can be swallowed, or a little ice, enmeshed in gauze, placed in the back of the mouth.

Unconsciousness of the patient may not be real or may be incomplete. He may see or hear.

The room should be kept cool and well lighted. The later stage of dying is usually without consciousness of pain. There is no "death agony." There is always an interval of perfect peace before death, even though the body may be restless. There may be suffering in the earlier stages of death, and medication then, by injections of atropine or morphine and procedures such as catheterization, will render good service and comfort the dying individual. All such measures of relief, even the presence of the doctor, will be most comforting to the patient and to the family.

An important part of the physician's duty to his dying patient is to recognize his per-

†Note: This refers to the intravenous use of Nembutal as a basal anesthetic: By mouth or rectum, in doses of 1½ to 3 grains (0.1 to 0.2 Gm.) it is excellent as a sedative in most mental cases.—Ed.

\*Irish Journ. of Med. Sc., Jan., 1933.

\*J. Med. (Cincinnati), April, 1932.

sonality and spiritual beliefs. Pure materialism at this time is helpless. If the patient or his family believe in the consolation of religious preparation for death, the physician should give ample notice to both. As in the physical way, so also in the spiritual way, the true physician should in every way be of assistance to his patient.

A. WORCESTER, M.D.

Boston, Mass.

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Look for THE LEISURE HOUR among the  
advertising pages at the back.

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### Treatment of Alimentary Toxicosis in Infants\*

THE paramount features of our treatment of severe alimentary toxicosis in infants are: (A) more radical and longer-than-usual rest for the gastrointestinal tract; and (B) treatment of dehydration with an intravenous supply of fluid.

From 100 to 250 cc. of a 5-percent solution of dextrose, in physiologic solution of sodium chloride or in Ringer's solution, is given rapidly in the first 15 to 20 minutes, after which the flow is reduced to from 15 to 40 cc. per hour, and this dosage is continued until the child is completely detoxified.

As soon as possible after the venoclysis is started, a transfusion of from 75 to 150 cc. of citrated blood is given through the same cannula in about 20 minutes. Caffeine or epinephrin is administered in the same way. (From 1 to 2 cc. of epinephrin, 1:1,000, is added to 250 cc. of dextrose solution, thus yielding from 0.13 to 0.33 cc. per hour.)

A 12-hour period of complete oral starvation is started, only enough water being given to wet the mouth and pharynx. Then, from 10 to 20 cc. of water is offered every 2 hours; if it is refused or vomited, the oral feeding is discontinued and the flow into the veins is substituted.

The administration of a simple mixture of milk and water is started only when the detoxification seems complete and not before the lapse of 36 hours.

Among 53 cases so treated, the mortality was 6, or 12 percent, compared with an average mortality of 64 percent for the preceding 10 years in the same hospital. During 1931, the average duration of diarrhea after the starting of the treatment was three days, with a maximum duration of nine days.

DRS. S. KARELITZ AND B. SCHICK

New York City.

\*J.A.M.A., July 30, 1930.

### Treatment of Allergy as a Potential Alkalosis

IT is logical to suppose that there is some fundamental underlying difference in the make-up of an allergic patient as compared with the normal individual.

Beckman's suggestion is that the allergic patient is a person whose fundamental body chemistry, either due to hereditary variation in type or to an acquired tendency, because of a long continued alkaline nutrition, varies consistently toward the alkaline side. He has used concentrated nitro-hydrochloric acid in treating hay fever and other types of allergy, with considerable success.

Since Beckman's paper in 1929, Dr. A. M. Alden, of Saint Louis, states, in the *Laryngoscope*, May 1933, page 400, that he has treated 18 consecutive cases of allergy on the acidification basis. All were of the perennial type of the disease and were diagnosed by the standard methods of history, skin tests and eosinophilia in nasal smears. Fifteen (15) cases have been benefited; 3 show no improvement. Those benefited show improvement varying from an increase in the length of time between attacks to complete relief of all symptoms.

In addition to acid treatment, he prescribes a dietary schedule which includes an excess of acid-ash foods. Doctor Alden has used dilute nitro-hydrochloric acid\* in doses of 10 to 15 drops, three times daily, after meals.

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### Infantile Diarrheas Treated with Raw Apples†

THE treatment of infantile diarrheas and other enteritides with raw apples has been found highly successful in Europe.

The apple diet consists of the exclusive feeding of raw apples. The core and pits are removed, the apples are finely grated and a puree thus prepared, which is freely administered raw and without sugar. From 500 to 1500 Gm. are given daily, divided into five feedings, and this is the exclusive diet for two days. The transition diet, commencing the third day, varies according to different reporters, but vegetables are taboo.

Experience shows that one is safe in concluding that the raw apple diet is a simple, unobjectionable procedure whose efficacy

\*Acidogen Nitrate is just as efficient as nitro-hydrochloric acid for the treatment of allergy, and is more desirable. It is a solid, in capsules, convenient to take, and does not erode the teeth. In the digestive tract it breaks down to form urea and nitric acid.—ED.

†J. de méd. et de chir. prat., Paris, Oct. 25, 1932.

seems incontestable and a method which deserves further use in the treatment of infantile diarrhea.

DR. R. MIGNOT

### Diagnosis of Early Poliomyelitis\*

**P**REPARALYTIC poliomyelitis is a clinical entity, distinguishable from similar conditions with relative surety. The disease is too often first recognized by the presence of

rural populations suggests that its extent and rapidity of development are related to the concentration of population in direct ratio to the opportunities for contact. Tests have shown that intimate contact with a person harboring the virus may result in immunization without any recognizable symptoms of the disease.

Further study is needed to discover the underlying factors that determine the outcome of exposure to the virus in two types of persons: immunity in one and disease in the

	Appearance	No. of Cells	Predominant Cells	Sugar Mg. per 100 Cc.	Bacteria
Normal .....	Clear	0-10	Lymphocytes	50-80	None
Poliomyelitis .....	Clear or slightly hazy	15-500	Very early, neutrophils; later, lymphocytes	60-80	None
Encephalitis .....	Clear	15-500	Lymphocytes	70-110	None
Tuberculous meningitis .....	Clear, fibrin web	15-500	Lymphocytes	10-60	Present
Purulent meningitis .....	Purulent	500-20,000	Neutrophils	10-60	Present
Syphilis, cerebrospinal ....	Clear	10-500	Lymphocytes	10-60	None

paralysis. The diagnosis of early poliomyelitis depends on a sound clinical suspicion, substantiated by evidence derived from examination of the cerebrospinal fluid. Epidemiologic evidence aids diagnosis in that cases are more numerous in August, September and October, with young children more affected than other age groups. The symptoms are those of many general infections, including, typically, a low-grade fever, headache and vomiting. Three outstanding physical signs contribute greatest aid. They are stiffness of the neck, rigidity of the spine and ataxic tremor of the extremities.

The diagnosis is primarily clinical. When the evidence suggests poliomyelitis and other possibilities have been eliminated, confirmation is effected by lumbar puncture at the proper time. The cerebrospinal fluid in poliomyelitis is essentially clear, rarely of greater turbidity than slight haziness. Laboratory differentiation thus resolves into distinguishing infections of the central nervous system characterized by clear fluids.

The table above shows the differential spinal fluid findings in poliomyelitis and other similar conditions, compared with normal fluid.

Dr. S. D. Kramer, of Boston, states that the marked discrepancy between the amount of immunity to poliomyelitis in urban and in

other. Even intimate oral contact does not always result in transfer of the virus in the secretions from the upper respiratory tract.

J. E. GORDON, M.D.

Detroit, Mich.

### Unsweetened Evaporated Milk and Bottled Cow's Milk in Infant Feeding\*

**F**ROM data obtained on 230 feeding cases (including 13 premature infants) we conclude that the average baby (118 cases) is able to assimilate unsweetened evaporated milk as well as, or better than, pasteurized or boiled bottled cow's milk (112 cases), as evidenced by weight and height increases.

The developmental points of sitting alone, crawling, standing, walking and eruption of the first teeth were practically the same in both groups. Likewise, infections, as evidenced by colds, etc., were of about the same frequency. There were five cases of rickets in the evaporated milk group; four in the bottled milk group. The evaporated milk formulas approximated the bottled milk formulas. Most of the babies were put on modified milk formulas, with Karo syrup added. An average of 58 calories per pound was supplied

\*J.A.M.A., Sept. 24, 1932.

\*The Journal of Pediatrics, 1: 426, October, 1932.

with evaporated milk, as compared to 53 calories per pound with bottled milk. Practically all babies were given orange or tomato juice and cod-liver oil before the third month.

Judging from weight increases alone, we believe that unsweetened evaporated milk has certain advantages in infant feeding in the early months of life. From the standpoint of economy, availability, sterility, uniformity of composition and easy digestibility, it has decided advantages over bottled milk in infant feeding.

LILLIAN KOSITZA, M.D.

Los Angeles, Calif.

### Injection Treatment of Hemorrhoids\*

ONLY about fifty percent of the usual run of hemorrhoid cases are suitable for the injection method. Only uncomplicated internal piles should be treated this way, and it is particularly suitable for hemorrhoids occurring during pregnancy, in the aged, in the diabetic, anemic and in all those on whom surgical procedures are contraindicated.

There are two variations in the actual technique. The older consisted in injecting the solution directly into the center of the pile. The other, the submucous injection, consists in injecting the solution into the submucosa above the hemorrhoid. The solution most commonly used has been 5-percent phenol in Wesson, olive or castor oil. I prefer almond oil, which is more fluid and appears to be more completely absorbed. One method should not be used to the exclusion of the other. In hemorrhoids associated with prolapse of the lower rectal mucosa, better results will follow if the submucous injection is done first; if it does not give satisfactory results, the direct injection method should then be used. The amount of solution should be limited to 5 cc. and gentle massage should follow.

For use with submucous injection, I prefer the Brinkerhoff anal speculum. When the submucous injection fails and a direct injection method follows, I use either a 5-percent quinine and urea hydrochloride solution or a stronger phenol solution. Of the first, only 1 to a maximum of 3 cc. should be used; if 10-percent phenol is used, no more than 8 minims should be injected, and only 5 minims of stronger phenol solutions. Two or more injections may be given at one sitting, if the patient can stand them. The interval between injections may vary from 5 to 7 days or more.

A 25-gage needle and a Luer-Lok syringe are used.

The injection method should not be used as a substitute for a properly performed surgical

hemorrhoidectomy when this is indicated, but, in selected cases, the results are very satisfactory, although recurrences are somewhat more common than with surgery.

R. N. GORSCH, M.D.

New York City.

### Oxygen Therapy in Heart Disease\*

OXYGEN therapy in diseases of the heart and circulation has a definite, though possibly limited, rôle. This general statement, in the light of our experience, should be further amplified and qualified as follows: It appears that in those cases associated with pulmonary complications, such as congestion or consolidation, infarction, edema of the lungs and the like, oxygen may be of particular value.

Oxygen in no sense should be considered a substitute for the older, well accepted method of therapy; namely, the proper use of digitalis, morphine and diuretics, but should be used in conjunction with them to serve as a useful and valuable adjunct.

In critically ill or apparently moribund cardiac patients, an oxygen-rich atmosphere may prolong life, add somewhat to the comfort of the patient, or stop the downward course of the disease and aid in the progressive return of compensation.

Miracles cannot be expected, and, in the presence of prolonged, advanced, progressive cardiac disease, as is true also of other available therapeutic measures, oxygen cannot achieve the impossible. Additional factors, adding to the burden of a probably poor prognosis, are the age of the patient, and, in a woman with a damaged heart, the history of repeated pregnancies. As in pneumonia, if oxygen is to be used, it should be instituted early and promptly, if the best results are to be obtained.

Other therapeutic measures, such as morphine for controlling pain and dyspnea, diuretics for relief of edema, and digitalis for slowing the ventricular rate in auricular fibrillation with rapid ventricular rate, are of value. While they are not crucial remedial agents, their use is justified, even though they sometimes fail to act. In like manner, even if cure or improvement are not always to be expected, the relief of dyspnea, cyanosis, restlessness, and tachycardia, the contribution to the sense of wellbeing, and improvement in appetite, color and sleep, may well repay the time, effort and expense of instituting oxygen treatment.

DR. W. W. HAMBURGER AND ASSOCIATES  
Chicago, Ill.

\*M. J. & Rec., March 2, 1932.

\*J.A.M.A., May 21, 1932.



# DIAGNOSTIC POINTERS

## Paranasal Sinus Infections

**A**N important predisposing cause of paranasal sinus infection is endocrine imbalance. In thyrotoxicosis the nasal mucous membrane loses its tone and presents an appearance similar to a mild allergic state. Hypothyroidism, with its low metabolic rate, is a condition which frequently precedes nasal sinus disease and, in cases where early treatment of calcium and thyroid extract (gr.  $\frac{1}{4}$  t.i.d.) has been administered, definitely established in a high percentage a subsidence of the symptoms of sneezing, watery discharge and mental depression, has been observed. In this condition of diminished resistance the membrane affords a fertile field for bacterial invasion.—Dr. L. B. Bouvré of La Grande, Ore., in *North-west Med.*, Dec., 1931.

## Neurosis of Bladder

**C**HRONIC urethritis and trigonitis, due to focal infection, elusive ulcer of the bladder and chronic ureteritis, account for such a large proportion of patients, whose symptoms have formerly been diagnosed as due to a neurosis of the bladder, that I have no hesitation in stating that the use of this term should be greatly restricted. We see so many patients with a renal or ureteral lesion, in whom the discomforts are all referred to the bladder or urethra, to the vagina, labium or perineum, or down the legs along the course of the crural or sciatic nerve, that it does not require a vivid imagination to suppose that symptoms, sometimes classified as due to a neurosis of the bladder, really originate in lesions of the nervous system located higher than the bladder.—Dr. G. L. HUNNER, of Baltimore, in *J. Urol.*, Dec., 1930.

## The Age Factor in the Length of Labor

**F**ROM the study of a very large series (5,700 cases), it would seem safe to conclude that, whereas age has no effect on the length of the first stage of labor in either primiparas or multiparas nor on the length of the second stage of labor in multiparas, increasing age does slightly prolong the second stage of labor in primiparas. Primiparas of fifteen years have a second stage approxi-

mately ten minutes shorter than the general average, and primiparas of thirty-three have a second stage approximately seventeen minutes longer than the average. Contradictory to the generally accepted belief that elderly primiparas have long labors, it would seem reasonable to conclude from these figures that age has no considerable effect on either the first or second stage of labor, whether the patient be a primipara or multipara.—Dr. L. A. CALKINS, of Kansas City, and Associates, in *Am. J. Obstet. & Gynec.*, Oct., 1931.

## Vitamins and Nervous System Lesions

**I**F IT is assumed that, in experimental work, lesions in the nervous system are produced as the result of single, rather than multiple, vitamin deficiencies, it must be granted that a large variety of vitamins play a specific part in the production of these lesions. Or, at least, any one of them can play an important contributory part to some factor, as yet entirely unknown, which is activated by them and alone produces the lesions. Which of these factors is responsible for the changes observed must await solution by the experimental method.—Editorial, in *J.A.M.A.*, July 9, 1932.

**Think of and watch for poliomyelitis (infantile paralysis) and tetanus during the summer months. These diseases are most common from July to October.**

## Psychochemistry

**T**HE manifestations of schizophrenia may tentatively be explained, from the biochemical standpoint, on the basis of deficiency in oxidative processes in the cerebral cortex. More fundamentally, however, there appears to be, in schizophrenia, a generalized inherent tendency to deficient oxidative processes, and dementia precox may eventually prove to be a deficiency disease, just as definitely characterized and almost as effectively handled as scurvy or rickets. Whether there is a dietary deficiency—meats, iron (?)—or whether some toxic substances are formed in the intestinal tract—amines, cyanids (?)—or whether emotionally restricted respiratory exchange leads to suboxidation, it is impossible to state.

Nevertheless, it is enough to work with and observe the inhabitants of the back wards to suspect strongly that these patients are suffering from some vicious circle of metabolic disorder that we are powerless, as yet, to interrupt.—Dr. W. FREEMAN, of Washington, D. C., in *J.A.M.A.*, Aug. 1, 1931.

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### Follicular Antitoxin and the "Reynals Factor"

IT IS known that ovarian follicular fluid acts as an antitoxin and immunizing agent. Recently Duran-Reynals, of the Rockefeller Institute, reported that testicular extract has the remarkable quality of greatly enhancing the infectivity of staphylococci and vaccine virus, this result having been confirmed and extended to other microbes by subsequent investigators. The effects are apparently due to the power of rabbit testicular extract to increase local tissue permeability, with resulting increases or perversions of local lymph formation. This local "Reynals hyperpermeability" persists and there are certain conditions in which its local application might be of predictable therapeutic value.—Editorial, *J.A.M.A.*, Jan. 23, 1932.

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### Diagnosis of Hyperthyroidism

THE most dependable symptoms of hyperthyroidism are persistent tachycardia, loss of weight in the presence of a normal or increased food intake and sensitiveness to heat. Hyperthyroidism should be diagnosed with caution under the following conditions; in the presence of mental symptoms; when symptoms are mild and the metabolic rate is from +15 to +35; when there is marked chronicity of nervous symptoms; and in cases under the age of 20 years.—Dr. M. E. HOLMES, of Syracuse, N. Y., in *Ann. Intern. Med.*, Feb., 1932.

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Look for THE LEISURE HOUR among the advertising pages at the back.

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### The Intestinal Tract and Insanity

IT has been stated that more than half of all hospital beds in the United States are occupied by the insane.

Practically, there is very little in the way of direct treatment to correct mental conditions. Most physicians consider mental symptoms an effect rather than a cause; or, stated in another way, the most hopeful form of treatment is that directed toward correcting physical pathology.

No one questions the participation of the intestinal tract in the general picture of disturbed mental equilibrium. In a group of 120 mentally affected patients admitted to the author's hospital, only 5 presented a fairly normal condition of the bowels. The indication is, obviously, to take active measures to normalize the digestive tract as quickly as possible.—Dr. E. H. WILLIAMS, of Los Angeles, in *Med. Herald, Physic. Therap. & Endocrine Survey*, Sept., 1931.

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### A Case of Tularemia with Special Postmortem Findings

A CASE of tularemia in a woman aged 37 years, who died 22 years after the onset of the disease, is reported. In this case auto-inoculation of two fingers of the left hand by contact with the primary lesion on the index finger seems to have been highly probable; the use of convalescent serum was without beneficial effects. As well as the usual findings, the autopsy showed lesions of the peritoneum, both focal and diffuse, and these are described for the first time. By a new staining method, the presence of *Bacterium tularense* in tissue sections from certain of the diseased organs was revealed.—Dr. MARGARET FOULGER and associates, of Cincinnati, in *J.A.M.A.*, March 19, 1931.

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### Psychogenic Menorrhagia

FROM several cases cited, it is indicated that menorrhagia frequently has a psychic cause that is completely overlooked, but which may be discovered by psychoanalysis.—Dr. J. A. MILLER, of New York, in *M. J. & Record*, Aug. 5, 1931.

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### Early Diagnosis of Acute Intestinal Obstruction

GIVEN a patient, especially one who has previously been subjected to an intra-abdominal operation; who does not look sick; whose temperature is normal; who complains of recurrent paroxysms of colicky abdominal pain; who has or has not passed gas or fecal material either spontaneously or following an enema; who on examination presents little or no local findings of intra-abdominal pathosis; who shows increased peristaltic movements, reaching their maximum at the height of the pain, and with the finding of gas and frequently fluid levels in the small bowel on an x-ray plate, the diagnosis of intestinal obstruction is established. With these findings

ever present in our minds, hours will be saved, strangulation of the bowel will be minimized, operative procedures will be greatly simplified, and mortality will rapidly fall.—DRS. E. I. AND J. M. GREENE, of Chicago, in *Illinois M.J.*, June, 1932.

### Functional Constipation

**F**UNCTIONAL constipation, spastic constipation, spastic colon, spastic colitis, colonospasm, toxic hardening of the colon, mucous colitis, spasmomyorrhea, mucous diarrhea, membranous diarrhea, membranous colitis and ulcerative colitis are different phases of the same disease process.

As our civilization becomes more and more artificial and the stress and strain and hurry of our struggle for existence becomes more and more strenuous, personal conflicts will become more numerous and more intense; and as the spastic state of mind increases, so will the spastic condition of the colon increase. We must, therefore, consider every patient with that most common gastro-intestinal symptom—constipation—a potential case of ulcerative colitis.—DR. ROY D. METZ, in *M. J. & Rec.*, Aug. 5, 1931.

### The Eye in Neurosyphilis

**A**BOUT 25 to 40 percent of cases of inflammations of the iris are of syphilitic origin; nearly 1 percent of syphilitics at some time have iritis.

Inequality of pupils and irregularity of pupils are common in syphilis; there are all degrees of pupillary reaction (Argyll-Robertson pupil) in tabes dorsalis; nystagmus practically never occurs in tabes; and about 40 percent of brain syphilis is evinced in the optic nerve. Seventy-five (75) percent of optic atrophies are due to syphilis.—DR. G. O. SHARRETT, of Cumberland, Md., in *Internat. J. Med. and Surg.*, Dec., 1931.

### Threatened Abortion

**T**HE pelvic physical signs of threatened abortion are those of intrauterine pregnancy, combined with vaginal hemorrhage. Dilatation of the cervix is hardly ever found in cases of threatened abortion; when present, it suggests that the abortion is becoming imminent. Care must be taken to distinguish between the multiparous cervix and a cervix which is dilating during the evacuation of the uterus.—DR. W. SHAW, in *Practitioner* (Lond.), Sept. 1932.

### Chronic Rheumatism and Proteose Injections

**I**N certain cases of allergic diseases, the intradermal injection of the urinary proteose can definitely ameliorate the allergic condition. It has been tried in chronic rheumatism and, as far as our experience of this treatment goes, benefit may occur in certain cases. To our minds, the liver and certain forms of rheumatism are intimately connected.—DRS. G. R. P. ALDRED-BROWN and A. GORDON WATSON, in *Practitioner* (Lond.), Nov., 1931.

### Purulent Urethral Discharge Due to Alcohol

**T**HE excessive consumption of alcohol produces a nonspecific urethral muco-purulent or purulent discharge, the basis of which is prostatic inflammation.—DR. C. M. WHITNEY, in *New England J. M.*, July 2, 1931.

### Emotional Glycosuria

**I**T has long been realized that excitement is one of the influences that tend to mobilize sugar into the circulation. Experiments have shown that hyperglycemia is uncommon in exercise with little or no emotional stress, but common in exercise with emotional stress, such as in football matches. Before the game the blood is normal and it appears to reach a peak when the game is half over. At the end of the game blood-sugar may be normal, while urine sugar is high. Emotional glycosuria is a factor that should be considered in diagnostic examinations.—Editorial in *J.A.M.A.*, Jan. 23, 1932.

### Ovarian Hypofunction

**O**VARIAN hypofunction may be primary, due to failure of full development of the ovaries, or secondary to pituitary or other glandular deficiencies or to local inflammatory or constitutional disease.

The objective signs are menstrual disorders, with occasional menorrhagia and metrorrhagia if the patient is approaching the menopause; also the appearance of the gonadal type of obesity.

The subjective symptoms are nervous, circulatory and general. The latter include lassitude, easy fatigability, constipation and vague pains throughout the distribution of the sensory nerves.—DR. A. A. WERNER, in *J. Missouri St. M. A.*, Aug., 1931.

# NEW BOOKS

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE AND SURGERY, North Chicago, Ill., is accompanied by a check for the published price of the book.

*Read not to contradict and confuse; nor to believe and take for granted; not to find talk and discourse, but to weigh and consider.*—SIR FRANCIS BACON.

## Shutes: Lincoln and the Doctors

**L**INCOLN AND THE DOCTORS. A Medical Narrative of the Life of Abraham Lincoln. By Milton H. Shutes, M.D. New York: The Pioneer Press. 1933. Price \$5.00.

Abraham Lincoln is the outstanding figure in American History, and his physical and psychic peculiarities were such that he has been a source of perennial interest to physicians.

Dr. Shutes has gone through an immense amount of historical material, and culled out all the references to Lincoln's association with members of the medical profession, in both professional and personal capacities. Two doctors were among his most intimate friends.

The periods of deep (almost pathologic) melancholy from which the Great Emancipator suffered are well delineated; but the author does not agree with Dr. W. A. Evans (another authority on Lincoln's medical history) as to his endocrinopathies, which seem fairly obvious to the casual student.

This book is a limited, numbered and signed edition, beautifully gotten up and printed, and will be reckoned a prize by all who are seriously interested in medical history, and will be of great interest and value to all students of American history in general and to collectors of Lincolniana—a choice library piece for the discriminating.

## Mercer: Orthopedic Surgery

**O**RTHOPAEDIC SURGERY. By Walter Mercer, M.B., Ch.B., F.R.C.S. (Edin.), F.R.S. (Edin.), Assistant Surgeon, Royal Infirmary, Edinburgh; Surgeon, Chalmers Hospital, Edinburgh; Lecturer in Clinical Surgery and Assistant in the Department of Clinical Surgery, University of Edinburgh; etc. With a Foreword by John Fraser, M.C., M.D., Ch.M., F.R.C.S.E., Regius Professor of Clinical Surgery in the University of Edinburgh. Baltimore: William Wood & Company. 1933. Price \$10.50.

This is a comprehensive book embodying the essentials of orthopedic surgery, and represents extracts of a series of lectures and clinics delivered by the author on orthopedic subjects.

That a general surgeon should have the temerity to write a book on a specialty is explained by the author by the fact that the Edinburgh Medical School maintains a tradition that a surgical specialty is only a branch of general surgery, and that, to become a

good specialist, one must first become a good general surgeon.

The work is conspicuously free from padding. It is evident that the author extracted only the essential parts, which he considered of importance for the reader. Most of the illustrations are photographs or radiographs, with some pen drawings. Students, general practitioners and others interested in this specialty will find it of value as a ready reference book.

Therapy, so often neglected in many text books on the subject, has been accorded due consideration. The making of plaster-of-Paris casts and other therapeutic aids is thoroughly described.

The chapter on affections of the spine is very interestingly constructed and embraces the latest thoughts on injuries in this region and their treatment. Equally good are the chapters on affections of the nerves and operations on the nervous system and on the knee joint. The bibliography, while not exhaustive, is complete enough.

M. T.

## Urine and Urinalysis

**U**RINE AND URINALYSIS. By Louis Gershenfeld, Ph.M., B.Sc., P.D., Professor of Bacteriology and Hygiene and Director of the Bacteriological and Clinical Chemistry Laboratories at the Philadelphia College of Pharmacy and Science. Illustrated with 36 Engravings. Philadelphia: Lea & Febiger. 1933. Price \$2.75.

This work has been written for graduates in pharmacy, chemistry, bacteriology and the allied professions; for nurses and technicians; and for those general practitioners in medicine whose interest in this subject centers about the performance of urinalyses. All of these workers have need of a recent authoritative monograph on this subject covering every important advance. Hitherto this data has been available only in larger books on biochemistry, physiologic chemistry or clinical laboratory methods, where it is usually neither considered in sufficient detail nor presented in its most useful form.

With the aid of this book, the physician and the laboratory worker should be able to maintain closer cooperation. It will give to the physician the proper evaluation of the results obtained from the various tests, and to the laboratory worker a rich fund of knowledge of practical value which will enable him to apply better judgment in reading the findings.

## Clark: Action of Drugs

**THE MODE OF ACTION OF DRUGS ON CELLS.** By A. J. Clark, B.A., M.D., F.R.C.P., F.R.S., Professor of Materia Medica in the University of Edinburgh; Formerly Professor of Pharmacology in the Universities of London and Cape Town; Author of "Applied Pharmacology." Baltimore: The Williams & Wilkins Company. 1933. Price \$6.25.

In this 300-page volume the author has tried to explain the mode of action of drugs, from a point of view of physico-chemical laws. It will be fascinating to those who are not satisfied with the simpler, current explanations of drug action, as available in textbooks on pharmacology, therapeutics, biology, etc. Dr. Clark has surveyed an enormous amount of literature, on which he is basing probable theories regarding the complexity of the reactions of drugs on the living cell.

The book is of particular interest to the research worker and the student. It is a stimulus to deeper thinking and greater progress in the field of medicine and related sciences.  
C. N.

## Hutchison: Medical Treatment

**THE ELEMENTS OF MEDICAL TREATMENT.** By Robert Hutchison, M.D., F.R.C.P., Physician to the London Hospital and to the Hospital for Sick Children, Great Ormond Street. Second Edition. Baltimore: William Wood & Company. 1933. Price \$2.00.

This little book by a famous London physician, is not a complete treatise on medical treatment, but merely aims to set out the principles and their application to the commoner forms of disease met with in everyday practice, special attention being given to the prescription of drugs. The book is written in an easy, conversational style and is particularly valuable to young physicians, interns, and senior medical students.

The new edition shows minor alterations and additions throughout the text, with the chapter on "Anemia" rewritten. A section has been added on "Sedatives" and chapters on "Anthelmintics" and on "Physiotherapy."

## Bridges: Dietetics

**DIETETICS FOR THE CLINICIAN.** By Milton Arland Bridges, B.S., M.D., F.A.C.P., Associate in Medicine at the New York Post-Graduate Medical School, Columbia University, New York. In Collaboration with Ruth Lothrop Gallup, Dietitian. Foreword by Herman O. Mosenthal, A.B., M.D., Director of Medicine at the New York Post-Graduate Medical School, Columbia University, New York, Philadelphia: Lea & Febiger, 1933. Price \$6.50.

This book is designed to fill the need for a work on dietary management which is readily understandable and from which practice can be immediately instituted. It is written for the general practitioner and the hospital intern, and it should commend itself to the dietetic department of every hospital and clinic. It is a handbook for the worker in the field of medicine who does not have the more detailed treatises at his immediate disposal.

The average physician is not always able to present his knowledge of the dietetic principles in the form of proper and palatable diets

for the patient. For this reason this book has had the aid of a collaborator whose business, for many years, has been to prepare food for the jaded appetite. The appendix contains practical recipes, tables of food values and extensive bibliographies. The index is adequate.

## Graham and Morris: Acidosis and Alkalosis

**ACIDOSIS AND ALKALOSIS.** By Stanley Graham, M.D., F.R.F.P.S., Leonard Gow Lecturer on the Medical Diseases of Infancy and Childhood, University of Glasgow, and Visiting Physician, Royal Hospital for Sick Children, Glasgow, and Noah Morris, M.D., B.Sc., D.P.H., F.R.F.P.S., Lecturer in Biochemistry, University of Glasgow, and Biochemist, Royal Hospital for Sick Children, Glasgow. Baltimore: William Wood & Company. 1933. Price \$2.75.

During recent years the disturbances of acid-base balance have assumed such increasing importance as to necessitate a clear understanding on the part of every general practitioner.

This book attempts to give a general survey of the subject and its application to disease, keeping in mind the needs of those not versed in recent chemical physiology. Special attention has been paid to conditions met with in infancy and childhood, the period when such disturbances have their greatest incidence.

## Walsh: Health Through Will Power

**HEALTH THROUGH WILL POWER.** By James J. Walsh, M.D., Ph.D., Sc.D., Medical Director of Fordham University School of Sociology; Professor of Physiological Psychology at Cathedral College; Lecturer on Psychology, Marywood College, etc. Boston: The Stratford Company, 1931. Price \$2.00.

This rather heavily padded book is a curious combination of good and bad, obviously intended for laymen, rather than for physicians, as there is little in it that would prove new to any well informed and observing medical man.

Many of the author's suggestions are such as a doctor might want to pass on to his patients; but a number of his ideas, which he expresses with some dogmatism, are so far from the reliable consensus and from general experience that it might produce a far from satisfactory impression on an uninstructed lay mind.

## Fisher & Gruenberg: Children

**OUR CHILDREN. A Handbook for Parents.** Edited by Dorothy Canfield Fisher and Sidonie Matsner Gruenberg. Sponsored by the Child Study Association of America. New York: Viking Press. 1933. Price \$2.75.

This interesting volume is written in a manner that is most useful to parents. It is a collection of articles by distinguished specialists in the fields of medicine, psychology, physiology and education, each specialist interpreting his research findings for the lay reader. It is not, however, over-simplified. It embodies the best current knowledge and most



expert present day opinions, and deals with the normal growth of children and "its ordinary deviations under certain environment."

Throughout the book, one is aware of the necessity of knowing and understanding the individual as a whole, being influenced by the many situations that surround him as well as by his original endowment. The book opens up many avenues of thought in regard to present-day situations and a changing society. Parents, however, will not find "prescriptions for their specific troubles, but that with which they may equip themselves to work out their own solutions." It is a book which physicians who deal with children can read with profit and recommend to their patients who are parents.

C. B.

### Jamieson: Anatomy

**A COMPANION TO MANUALS OF PRACTICAL ANATOMY.** By E. B. Jamieson, M.D., Senior Demonstrator and Lecturer on Anatomy at the University of Edinburgh. Third Edition. New York and London: Oxford University Press, 1932. Price, \$5.00.

This is a pocket-size compend of anatomy, admirable for students reviewing for examinations and for revision of work while the dissection of a "part" is in progress. It is also useful for practitioners who wish to have a condensed yet complete volume at hand for quick reference to problems in anatomy arising in the course of the daily practice of medicine and surgery.

The subject matter is divided into chapters according to systems, in each of which there are good descriptions of the anatomic relations in the more important regions. The B.N.A. or an English translation of it is used throughout and in many cases the old terminology is inserted in brackets. A glossary giving B.N.A. terminology and old terminology in parallel columns, which appears at the beginning of the book, will be found useful when using it in conjunction with some of the common texts on applied or practical anatomy, in which the indiscriminate use of old and new terminology is confusing.

A. S. P.

### Hunt: Chronic Indigestion

**THE COMMON CAUSES OF CHRONIC INDIGESTION. Differential Diagnosis and Treatment.** By Thomas C. Hunt, B.A., D.M. (Oxon), M.R.C.P. (Lond.), Physician to Out-Patients and Junior Medical Tutor St. Mary's Hospital, London; Assistant Physician, Queen Charlotte's Hospital, London. Baltimore: William Wood and Company. 1933. Price \$4.25.

An excellent, concise book for general practitioners, internists, surgeons, and diet specialists, providing an up-to-date, practical outline of present-day views on the common causes of chronic indigestion, with differential diagnosis and treatment, based on the personal experi-

ence of the author. The surgical aspects are not detailed.

### Kettner: Spinoza

**SPINOZA THE BIOSOPHER.** By Frederick Kettner. Introduction by Nicholas Roerich. New York: Roerich Museum Press. 1932. Price \$2.50.

A good many people are beginning to feel that we need a new philosophy, other than materialism, to sustain us in the trying times through which we are passing and seem like to pass. Such persons will do well to consider the ethico-social philosophy of Spinoza, which is metaphysics with its feet on the ground and should prove an antidote to the doubts and fears of a mechanistic age.

Baruch Spinoza, the Dutch-Jewish lens grinder and philosopher of the seventeenth century, was called an atheist and was excommunicated for his heterodox ideas; but Novallis called him a "God-intoxicated man." He was a biosopher (an intuitive thinker), who put his abstract ethics to practical use; taught the joy of living fully and of the pursuit of the three L's—Light, Life, Love and Liberty; and glorified thinking as man's highest exercise.

In this beautifully made volume, one can gain, in a brief compass, an epitome of all of Spinoza's books, digested and annotated by one who is in full sympathy with the beautiful teachings presented. It is no light reading for triflers, but strong and nourishing meat for those who are spiritually mature.

### Groves: Surgery for Nurses

**SURGICAL OPERATIONS; A Textbook For Students and Nurses.** By E. W. Hey Groves, M.D., B.Sc., M.S., F.R.C.S., Consulting Surgeon, Bristol General Hospital; Emeritus Professor of Surgery, University of Bristol; Member of the Court of Examiners, Royal College of Surgeons, England; etc. Third Edition. London: Humphrey Milford, Oxford University Press. 1933. Price \$4.50.

The object of the work is to give a simple account of surgical operations and technic, suitable for students and nurses during their training and for reference afterwards.

The most usual operations are discussed from the nurses' point of view and, if studied, will obviate the regrettable necessity of teaching graduate nurses at the operating table.

Each operative procedure is dealt with by first reciting a short account of why the operation is performed, followed by naming the instruments required in the performance of the particular surgical procedure, a description of the steps of the operation and stressing special points to be observed before, during and after the operation has been performed.

M.T.

# MEDICAL NEWS



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## Dr. Schick at Work

DR. BELA SCHICK, the Austrian scientist who originated the widely used Schick test for susceptibility to diphtheria, is shown (at the right) in this picture immunizing a child against the disease he has done so much to overcome. Health Commissioner Shirley W. Wynne, of New York (left) and Mr. John Kingsbury, of the Milbank Memorial Fund, are looking on.

## Chicago Plant for Johnson & Johnson

THE business of the world's largest manufacturers of surgical dressings and supplies is increasing so fast that, on September 1, they will open, in Chicago, an additional, thoroughly modern plant, employing 225 people, to supply at least part of the needs of the physicians and surgeons of the Middle West.

## Educational Movies

SECRETARIES and program chairmen of county medical societies, who want to use an educational motion picture as a feature of a meeting, will do well to write to Davis and Geck, Inc., 217 Duffield St., Brooklyn, N. Y., for information and a list of the films they are prepared to loan for this purpose, without charge.

## Medical Woman's Journal

THE only scientific monthly publication, devoted to the interests of women physicians throughout the world, is the *Medical and Professional Woman's Journal*, which assumed this new title, with the broadening of scope which it indicates (taking in dentists, dietitians, public health workers and other women), along with a new "dress" and some new policies, in June, 1933.

This seems to be a step in the right direction, and we wish our esteemed contemporary success in its new undertaking.—Ed.

## Surgical Motion Pictures

PHYSICIANS and surgeons who are interested in making medical, surgical or other scientific films will welcome a monograph entitled "The Motion Picture as a Professional Instrument," prepared by W. F. Kruse. It will be sent free of charge to doctors or hospital executives on application to the Educational Division, Bell & Howell Company, 1801 Larchmont Avenue, Chicago.

## HOSPITALS AND HOTELS

I would like to draw your attention also to another phase of medical economics. Hospitals are really hotels for the sick. They supply to the sick the services supplied to the well by hotels. They also supply many services to the sick that are not supplied by hotels. And yet hospital prices compare favorably with hotel prices. If some of the critics of the cost of medical care are really interested in saving the public money, why not ask that hotel prices be reduced, and why not give to the hospitals the same protection in the collection of their bills that is now given by law to the hotels? —Dr. JAMES H. HUTTON, Pres. Chicago Med. Soc.

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TO ASSIST doctors in obtaining current literature published by manufacturers of equipment, pharmaceuticals, physicians' supplies, foods, etc., CLINICAL MEDICINE AND SURGERY, North Chicago, Ill., will gladly forward requests for such catalogs, booklets, reprints, etc., as are listed from month to month in this department. Some of the material now available in printed form is shown below, each piece being given a key number. For convenience in ordering, our readers may use these numbers and simply send requests to this magazine. Our aim is to recommend only current literature which meets the standards of this journal as to reliability and adaptability for physician's use.

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